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Measurement of corporate social performance : determining the impact of business actions on areas of social concern

American Institute of Certified Public Accountants. Committee on Social Measurement

The Measurement of Corporate Social Performance

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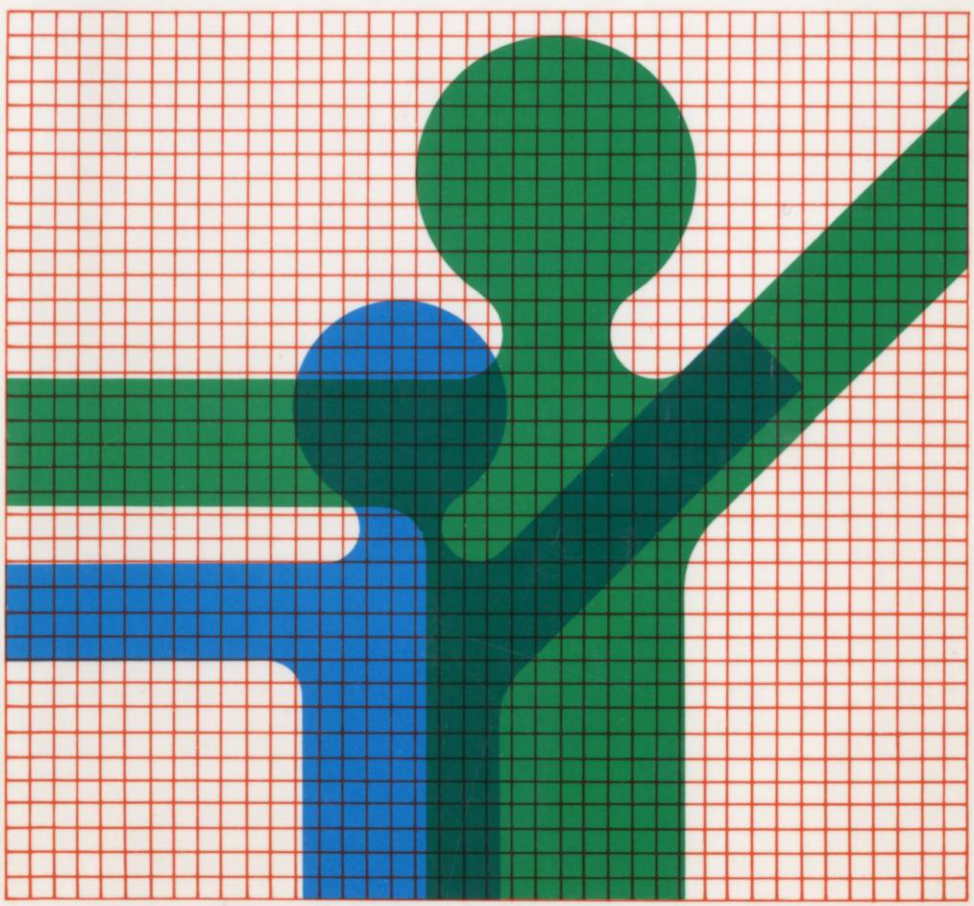

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DETERMINING THE IMPACT OF BUSINESS ACTIONS ON AREAS OF SOCIAL CONCERN

Issued by the Committee on Social Measurement
American Institute of Certified Public Accountants

Foreword

Four years ago, the American Institute of Certified Public Accountants took its initial step into social accounting by organizing a seminar at Charleston, South Carolina. The proceedings of that meeting, later published by the AICPA under the title "Social Measurement," set forth the views of a number of outstanding members of various disciplines on the need and prospects for the development of social information.

Several representatives of the AICPA present at the meeting, and others who subsequently joined them, were sufficiently convinced of the potential importance of social measurement to the accounting profession to accept the AICPA's invitation to become members of the committee on social measurement. The initial result is this study, which examines various aspects of the measurement of corporate social performance.

The study is solely the responsibility of the committee that prepared it. It has not been reviewed or acted upon by any of the standards-setting committees of the Institute, by the governing body of the Institute, or by the membership of the Institute. Consequently, its publication by the Institute does not constitute official endorsement of the conclusions advanced or the opinions expressed.

Social measurement in some respects overlaps the familiar fields of financial accounting, but its principal focus is considerably different. So, too, are many of the techniques and difficulties of measurement, of reporting, and, potentially, of auditing.

Clearly, this study is a pioneering endeavor to assess the promise and problems of corporate social measurement and the role that CPAs may play in that process. The Institute is grateful to the committee for the substantial amount of time and effort they have invested in the preparation of this document.

Individuals and groups are invited to express their views on it. Comments should be addressed to the Institute's committee on social measurement. Comments will be regarded as public information unless a request is made that they be treated as confidential.

Wallace E. Olson, *President*
American Institute of
Certified Public Accountants

Preface

Profound changes have occurred in society during the past twenty-five years. New stresses have appeared and older problems have forced their way into view. In the process, fundamental institutions have been challenged to provide socially responsible conduct and public accountability for their actions. Business, perhaps more than most, has been so challenged.

Companies, in attempting to respond to this challenge, have encountered numerous obstacles. Among them are those that relate to knowing what the consequences of corporate actions really are. Present knowledge about the complex interrelationships between business and society is woefully inadequate. And even in those instances where relevant knowledge is available, there are few generally accepted conventions for measurement and communication.

Accountants have long been involved in the processes of measurement and in the presentation and interpretation of data. Over the centuries they have developed increasingly well-structured and meaningful methods for recording, processing, and communicating both financial and related nonfinancial information. It is, therefore, only natural that accountants should attempt to combine their skills with those of other disciplines and professions to develop a system of social measurement.

It is by no means impossible that the results of social measurement eventually will approach those of financial measurement in utility and importance. It is hoped that this book will contribute in a modest way to the achievement of that objective. It has been written as an initial effort in a complex and developing field for members of the accounting profession, for executives in business, government, and nonprofit institutions, and for members of other disciplines who are interested in reading about how social measurement now appears to some members of this profession. The book is intended to enable its readers to make meaningful contributions to the continued development of social measurement. Toward this end, the authors hope to provide (1) a general understanding of the subject and its importance, (2) an indication of its present status and future prospects, (3) useful guidelines for the development and implementation of systems, (4) some examples of better current practices, and (5) encouragement to participate in a developing art.

Following the introductory chapter, the authors focus on the characteristics of an ideal system of social measurement, concluding that for a variety of reasons, discussed at length in Appendixes 1 and 2, the only realistic approach is to develop an initial system that, although far from perfect, will be immediately valuable and will permit gradual movement in the direction of the ideal. Then they discuss some of the practical problems that will need to be dealt with in designing and implementing an initial system.

Next, the authors describe how the initial system might function in a number of areas of significant social concern—employment, the environment, resources, suppliers, products and customers, and the community. The series concludes with a discussion of some of the lessons that can be learned from governmental attempts to develop and use social information.

The final chapters cover the communication of social information and its use by corporate and external audiences, problems of credibility and assurance, possibilities and limitations of auditing social information, and suggestions for implementation.

Of the four appendixes, the first three provide more extended and technical discussions of ideal and achievable systems and of the accounting principles that might be employed in social measurement than are contained in the main body of the book. The fourth appendix briefly describes a number of areas in which further research would be desirable. The bibliography indicates the types and sources of material that the authors believe will be particularly helpful to those wishing to pursue this subject further.

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The committee received considerable assistance from many people in the preparation of this book for which it is deeply grateful. Its special thanks go to Marie Bareille of the AICPA publications division for her aid in editing and preparing the manuscript for publication.

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Exhibits

Part One

Part 1 is composed of three chapters. The first chapter is an introduction to social performance measurement. It discusses the basic point of view taken in this book—namely, that all business actions have both economic and social effects and that social performance measurement is concerned with the social impacts that corporate actions have on those social conditions that have a significant influence on individuals and groups of individuals. Important differences and relationships are identified between social performance measurement, social information, corporate social responsibility, and the corporate social audit. There follows a discussion of the principal uses and users of social information and some general comments on the present status and prospects for developing information that will satisfy these needs. Chapter 2 sets forth the characteristics of an ideal system, discusses some of the problems involved in achieving it, and describes an initial system that, while imperfect, has the virtues of being attainable in the near future and useful for the information it will produce. Some of the more likely improvements are also indicated. Chapter 3 concludes part 1 by addressing many of the specific issues that will be faced by the developer and implementer of the initial system. It explores, in more detail, the idea of the "social set" and the interrelationships of business actions, impacts, social conditions, and the quality of life of publics and constituencies.

one | An Introduction to Corporate Social Measurement

Every business action, if traced with sufficient care, will be found to have both economic and social consequences. Whether a company wishes it or not, in the course of being a producer of goods or services, it generates a wide variety of important social impacts. Most of these impacts are the unavoidable by-products of the processes of manufacture and distribution. Others arise through the use of the goods and services by the company's customers. Some, but proportionately few, result from business participation in civic and charitable activities.

Corporate social measurement is concerned primarily with the social consequences of business actions; its end product—social information—is increasingly viewed as an important complement to the substantial amount of information that is available about the financial consequences of business actions. Together, they are thought to present a considerably better picture of a company's total performance than either can alone.

The Growing Interest in Corporate Social Performance

The substantial increase in interest in the social performance of business is an outgrowth of heightened public concern over many aspects of society, including the performance of its major institutions, that has characterized the past two decades.

Business, as one of society's major institutions, has come to be seen

as having an enormous influence on both the character and health of society. The existence of air pollution, for instance, indicates that some business activities have a deleterious impact on society. At the same time, it is clear that business is a very positive element in society and that certain kinds of social problems, such as minority employment, require the continuing participation of the private sector if substantial progress is to be made. Above all, it can be seen that business is the major source of employment and that most, if not all, of its products and services serve what individual members of society deem to be their needs. Some people concentrate on the negative aspects of corporate social performance, but many others take a more useful and balanced point of view.

Interest in the social performance of business is not new. What *is* new is the greater number of individuals, governmental agencies, and nongovernmental organizations desiring social information, the parallel desire for such information by corporate managements, the variety of subjects in which they are interested, and the increasing ability of all to use social information effectively.

Several ideas underlie the growing interest in social information. The first is of an economic nature: it holds that some business activities result in harmful consequences, such as air and water pollution, that are not included in the manufacturer's costs or reflected in the price paid by the purchaser-user of the product. This situation occurs because neither the manufacturer nor the user incurs the costs necessary (1) to prevent or correct the harmful consequences or (2) to compensate those who will be damaged by them. The result is an underpricing of the product within its entire social context that leads to an overallocation of resources from a broad, economic standpoint. The reverse situation exists when the unpriced consequences are beneficial, in which event the overpriced product leads to an underallocation of resources from a societal point of view.

Another idea is more philosophical: it holds that business, like any major institution, does not possess its role in society because of an inalienable right but because society finds it useful that it should do so. It holds that no major institution—be it organized for religious, governmental, military, academic, or some other purpose—can expect to find itself fully acceptable to society if it single-mindedly pursues its major objective, no matter how laudable that objective may be, without regard for the range of consequences of its actions. The institution, the argument continues, may be able to impose its will for a time, but, in the long run, its survival requires that an accommodation be made with society.

Most businessmen, particularly in a democratic society, would agree with this idea. So would most members of the church, state, military, and other institutional communities. Thus, business, like other institutions, is permitted to seek its private objectives subject to legal, social, and ethical boundaries that operate either as limitations on negative behavior or as incentives to achieve positive goals. Certain of these constraints are imposed or negotiated by society in the form of laws, governmental regulations, union agreements, and by the pressures of the general public or general and self-interest groups. Others are, to a greater or lesser extent, self-imposed, arising out of what a company's executives and employees believe to be the proper role of business in society and their perceptions of what they, their peers, and society itself consider to be laudable or reprehensible conduct.

Some of these constraints have been clearly articulated, even formalized through the passage of laws; others are less clearly formed and less formally recorded. In some instances, concern with future, rather than present, constraints and penalties is an important force.

This concept of business conduct as being motivated by profit-seeking subject to social constraints appears to be consistent with the manner in which most companies operate and most managements conduct themselves. The social constraints may, at times, be thought of as limitations on action, "rules-of-the game," desirable social postures, or merely generators of costs. But, however they are regarded, they form an important part of the environment within which a company seeks to achieve its private, profit-making goals.

The third underlying idea is quite pragmatic: it holds that, no matter what the reasons may be, companies are taking many actions with social impacts and objectives that affect their costs, the market prices of their products, and their profits. These actions have been increasing in number, in scope, and in cost. Society and corporate executives are interested in learning what is (and is not) being attempted and accomplished and, in varying ways, judging whether the actions being taken are adequate, appropriate, and effective.

These notions suggest some of the principal motives of many who desire social information. On the one hand, society is interested in understanding the economic and social repercussions of business activity within its existing "social contract." On the other, corporate executives are interested in using social information to manage their businesses effectively and economically, with due consideration for the broader interests of society.

What Is Meant by Social Information?

Within this volume, the term "social information" is intended to relate to the social impacts that business actions make on individuals, on groups of individuals called publics, and on the conditions that substantially affect their lives. It is concerned with the social consequences of business actions in such areas as employment, the environment, the design and use of products, and the conditions in the immediate neighborhood of the corporate facility, to cite a few examples.

Social information can take a variety of forms. It can be strictly quantitative, or strictly descriptive, or have some of the characteristics of each. It can be essentially neutral or highly evaluative. A diversity of methods and media can be used in its presentation. But whatever its form, its purpose should be the same—*to establish and communicate the social impacts of business actions on those who are affected by them.*

Social information is not the same as "corporate social responsibility." The latter term embodies the notion that a company should be concerned with the nature of its economic and social impacts and should seek to achieve some (normally undefined) level of social performance. Those who use the term frequently imply that business should be "more responsible," or even that business should cease being "irresponsible," although such a negative connotation is, in our view, not appropriate. In fact, deciding upon the level of performance that is "responsible" is an elusive proposition. Agreeing on what constitutes responsible social performance, or even on which groups should be able to make that decision and the weight that should be given to their respective views, is the essence of much of the social and political controversy of our time.

Social information also should be distinguished from the "corporate social audit." The latter generally refers to (1) the development of information about the social impacts of a company's present actions, (2) the establishment of objectives, plans, and standards of desired social performance, and (3) the subsequent determination of the effectiveness of efforts to achieve them. As generally used, the term implies a careful investigation. However, it carries no requirement for third-party audit and thus is something of a misnomer. Almost always, the term implies improvement or response to a desire for "more responsible" corporate behavior.

Usually a corporate social audit is undertaken to identify problems, opportunities, and solutions; perhaps it is undertaken to sensitize man-

agers to social matters, and, by providing some logical order of attack, to turn amorphous concerns and aims into specific matters that can be dealt with effectively. The Harvard social psychologist, Raymond Bauer, looking at the social audit from essentially a managerial point of view, sees it as having four major purposes:

- To satisfy the internal conscience.
- To anticipate and avoid pressure from employees, stockholders, governments, and residents of plant communities.
- To contribute to the solution of social problems by improved decision making.
- To satisfy external requests and requirements.[1]

Social information is obviously important in matters relating to corporate social responsibility and to the objectives and methods of the social audit. It is not, however, identical with either of them. Social information should be considered to bear the same relationship to corporate decision making and performance in the social arena as financial information bears to decisions and performance in the financial field. Information does not dictate decisions; it provides one of the inputs to the decision-making process and a means of assessing results.

The Hierarchy of Social Information

In an ideal situation, information developed by a particular company about the social impacts of its business actions would form part of a hierarchy of information. Assuming the development of appropriate procedures to eliminate "double counting," it would be combined with information from other companies to develop industry, regional, national, and other comparisons and summaries. In combination with similar information about impacts created directly by governments, other nonbusiness entities, and individuals, it would be aggregated to provide the total impact on the country as a whole.

[1] Raymond A. Bauer and Dan H. Fenn, Jr., *The Corporate Social Audit* (New York: Russell Sage Foundation, 1972).

Such a grand design is attractive and its structure is visible. It even is being carried out in a rough fashion in a few limited areas—for example, certain aspects of safety and pollution. However, it is very far from realization and many believe it will never be accomplished. Whatever the future holds, most people are only now learning how to deal with the parts, much less put them together to build a whole.

What is occurring is a series of efforts to produce different kinds of useful information. There are impressive attempts in a number of countries, including the United States, Canada, France, the United Kingdom, and Japan, to develop "social indicators" for the country or significant parts of it, based largely on already available statistics. (The result of the first such U.S. attempt was published for the year 1973 under the title "Social Indicators.") Other compilations of social information are being prepared for more limited areas, such as cities or regions, using available data and supplemental information gathered by special studies and surveys. Finally, there are the relatively limited and imperfect efforts of some businesses, nonprofit institutions, and governmental agencies to identify their social impacts at the level of the entity or its subdivisions in terms that are relevant to their situations.

Each of these efforts is by itself promising although in its relatively early stages. Users find the presently available information helpful but, most often, inadequate for their purposes. Users, however, can also note that, imperfect as it is, the information is improving.

Users of Social Information and Their Requirements

Of course the value of social information lies in how well it satisfies the requirements of its users. Who are the users of social information? What kinds of information do they want? How will they use it? Is it reasonable to assume that they will be satisfied with what can be made available?

The first conclusion one reaches from a consideration of these and similar questions is that the users of social information will be even more varied and their information needs even more extensive than the users of financial information. It also seems apparent that social information, under even an optimistic view of its prospects for development, will be

able to meet only a small fraction of what will be desired of it within the foreseeable future.

These conclusions are borne out by Exhibit 1-1, which summarizes the information requirements of the principal anticipated users. As it indicates, their needs vary along a full spectrum, from the broadest to the narrowest; users' objectives vary from broad considerations of theories and policies to specific questions involving compliance with detailed specifications and laws.

A further conclusion is that users' access to information varies enormously. At one end of the spectrum are (1) corporate executives, who can develop almost any information they can afford and technically produce about their own company, and (2) governments which, "within reason," can require that the information they deem necessary be made available to them. The accessibility of information to other would-be users varies with the extent of voluntary disclosure, the prestige or pressures different individuals or groups can bring to bear, and the skill and persistence with which they can track down information that is available publicly (for example, filed with governmental agencies or used in court cases). At times, social information can be created independently of a company—as in the case of resident-financed community surveys of citizen reactions. However, such procedures have limited application and are beyond the economic resources of most user organizations and individuals. They can be used only rarely as an alternative source of "private" corporate information that a company will not make available.

Corporate Social Information Now

What is the present state of corporate social measurement? An overview of the situation might be summarized as follows:

- Although there are enormous gaps, companies do have available a fairly substantial amount of information about business actions and the nature of their social consequences; most of it is about impacts on what might be called the "social conditions" which substantially affect the lives of individuals.
- In most areas, the information available is incomplete, and often in-

accurate; usually, companies do not and can not measure social impacts very well nor trace them very far.

- Information is most complete and accurate when it is required by law, regulation, or contractual agreement.
- Information is most extensive in matters dealing with employees. Additional useful information could be, and increasingly is being, developed about product characteristics, environmental impacts, and other areas of major importance, particularly where government regulation is involved.
- Companies already use social information to a limited degree in setting policies, establishing practices, taking actions, and monitoring results. However, the extent to which this is done varies with legal requirements and with managerial styles and objectives.
- An increasing number of companies issue public reports on social matters deemed to be of public concern; these reports can often be faulted for emphasizing favorable facts, omitting or glossing over the unfavorable, or using oblique language, but some conscientious and useful efforts are being made. There is often reasonable disclosure of method, although there are no common principles of preparation.
- Companies are not asking for or receiving third-party audit reports on the information provided, although something approaching it is found in certain reports, such as environmental impact statements, when independent experts are employed.

A brief appraisal of future prospects

There is little likelihood that a system will be devised in the foreseeable future that can measure the social impacts of business actions with anything approaching the refinement of financial accounting systems. Nevertheless, substantial strides can be expected to result in more useful social information.

Both the number of subject areas being given attention and the specific problems receiving study are increasing. Standards for the development and disclosure of social information will be enunciated over time. Knowledge of the manner in which business actions impact on society will continue to grow. Better measurement techniques will be devised and used by accounting and other disciplines in order to produce useful information at reasonable cost. Social information will become more important to the managerial function, not only as an ingredient of economic decision making

but also as a means for meeting the public's social expectations of private enterprise.

This book is simultaneously optimistic and pessimistic. It is pessimistic about expectations that a social information system with even the relative purity of financial accounting systems will be developed in the foreseeable future, if ever. It is optimistic that much can be accomplished and that it will be useful.

Users and Their Needs

Principal users	Major objectives	Nature of useful information
1. Sociological and economic theoreticians.	• Examining the utility of present economic theories with respect to such matters as resource allocation, pricing, growth, income, and employment and determining their implications for governmental economic and regulatory policy. • Examining the utility of present sociological, psychological, and political theories about the behavior and impact of business on society as a whole and on specific social groups. • Developing better theories by which to explain and guide society, business, and other groups in their relationships.	• Information about large-scale causes and effects; therefore, information about the country as a whole or major segments of it. The social equivalent of Gross National Product and of matrix-type input-output models would be close to ideal, although they would be difficult or even impossible to implement on a large scale. • Information about a specific company or community would be less helpful, except for use as part of a sample from which generalizations were drawn.
2. Social commentators, activists, and public interest groups (The Council on Economic Priorities, the Nader organizations, the National Resources Defense Council, Inc., etc.).	• Informing and influencing public opinion and corporate action, influencing legislation and regulation, laying the basis for court actions. • Examining whether a social concern has the degree of importance attached to it by society.	• General and specific information about an industry's or a company's performance in specific areas (e.g., employment, pollution, credit, and product safety) with respect to ongoing operations and, at times, major contemplated projects.
3. Legislative and executive branches of federal, state, and local governments and their commissions and regulatory agencies.	• Framing or revising laws. • Making and interpreting detailed rules. • Setting standards in specific terms. • Executing government programs. • Monitoring and regulating the private sector. • Adjudicating disputes.	• Information which covers entire range from (a) information about society as a whole, problems in specific areas affecting specific publics, costs and benefits and technology available for different levels of performance to (b) very specific information about specific companies and specific aspects of the operation of those companies.

4. Participants or prospective participants (e.g., present or prospective employees, suppliers, and customers).	• Considering a company's social performance in deciding whether to enter into or maintain an economic relationship.	• An indication of company's overall social performance. • Social performance in area of greatest economic interest (e.g., employment).
5. The immediate neighborhood and the broader communities (extending to the nation and the world).	• Establishing and maintaining a satisfactory relationship (perhaps, an appropriate balance of good and bad impacts) between the company and those affected by its impacts.	• A fairly comprehensive profile of significant impacts on communities most affected, with a substantial amount of information about problem impacts. • Increasingly general information as communities become larger or more remote and impacts of individual companies become proportionately smaller.
6. Investors/owners.	• Assisting in deciding whether the overall economic and social performance of a company justifies their providing capital for its operations.	• Primarily, the overall profile of social performance. • At times, specific information about specific areas considered of particular importance by the individual or organizational investor.
7. Corporate management.	• Being aware of, and prepared for, present or potential reactions of the other principal users. • Meeting governmental and other legally enforceable requirements. • Establishing and achieving management's own set of corporate objectives. • Monitoring and rewarding social performance through the company's own promotion, disciplinary, and compensation systems.	• Company-oriented information—as general or specific in nature as is required. • A considerable amount of information about industry problems of major importance and of the performance of competitors. • More general knowledge about the performance of business in general.

two | The Major Characteristics of Ideal and Initially Practical Systems

An Ideal System

The major characteristics of an ideal system can be stated fairly simply and, in broad terms, as follows:

1. An ideal system of social measurement would, in fact, be a *system* based on *measurement.*
2. It would produce information about each and every cause/effect relationship arising out of the impact of any defined entity on the quality of life of all significant segments of society.
3. The resulting information would be expressed in quantitative terms that not only would be separately useful for the immediate purposes of the measurements, but also would be initially expressed in, or converted to, a single common measurement unit.
4. Measurements would be made for the duration of the impacts, in a manner giving appropriate recognition to timing differences, using direct methods without surrogates; they would be consistently applied across entities and constituencies and over time in a manner neutral toward any particular set of social objectives and requiring only a minimal expenditure for measurement costs.
5. The information thus produced would permit both the entity's management and outsiders to engage in efficient decision making, using sound socioeconomic planning and control procedures; to evaluate an entity's past, present, and intended actions using both normative and nonnormative bases of comparison; and to continue or, if need be, to modify the entity's "contract with society."

This is not the only ideal system that could be proposed, but it is a reasonable and rational one that is essentially neutral toward any particular set of social values.

An Initial System

For a variety of reasons that are discussed in some depth in Appendixes 1 and 2, there is little possibility of the early achievement of the ideal system. In fact, one can reasonably expect only that there will be continued progress toward it.

Some of the reasons for this are technical in nature and have to do with the relative inadequacy of measuring devices and methods. Some reasons are economic, stemming from practical limitations imposed by the high cost of obtaining data. Others arise out of the reluctance of corporate executives to develop social information, or out of their lack of incentive to do so. Still others result from the extraordinary complexity of society and our inadequate understanding of human responses to various social conditions. Others, finally, are rooted in ethical and moral issues.

Thus, the immediate questions pertain not to what is ideal but to what is achievable. What can reasonably be expected to be the characteristics of an initial system that could be achieved by, say, 1985? Will it and subsequent improvements be consistent with the goals and character of an ideal system? Exhibit 2-1, at the end of this chapter, deals with these questions. It describes ideal and initially achievable systems and projects the improvements that might be expected in the first quarter-century. It indicates that a social information system capable of implementation within a decade will probably have the following major characteristics:

1. Not all social phenomena will be measured; instead, emphasis will be given to significant actions and impacts affecting areas of primary social concern.
2. Within each area of emphasis, measurements will be made of selected attributes, chosen because they indicate the essence of actions taken and impacts made by the company.
3. A variety of units of measure will be employed, and narrative descriptions will be used where quantitative measurements are not practical.
4. Although occasionally there will be attempts to assess impacts on the quality of human life directly, the measurements will usually relate to

impacts on social conditions thought to affect the quality of human life to a significant extent.

5. Where the measurement of impacts on social conditions is not practical, an attempt will be made to measure actions and their immediate results. (These may often be measured, in any event, because of the intrinsic value of that information.)
6. The distinction between social and economic information will often be obscure.
7. The system will not possess complete neutrality.

The authors term a system having these characteristics "an initially achievable system." Since most of this book will be devoted to such a system, these characteristics are discussed in greater detail below.

A System Based on Indicators

There is no conceivable way that an initial system can encompass all the social impacts of all a company's actions on the quality of life of, or social conditions that are important to, all the publics that they affect. It will not resemble an accounting of cash receipts and disbursements—detailed, accurate, balanced, and complete. The most important single characteristic of the initial system is that it will generate information about indicators of performance.

Thus, the initial system will produce information about selected impacts that, in total, can be considered to be reasonably and properly descriptive of the consequences of a company's actions. To accomplish this, the measurer will use selected types of measurements that are believed to indicate the nature and extent of these impacts.

This is by no means an unusual approach. For example, residents asked to describe their community choose those qualities they feel best indicate its character and describe those qualities in appropriate language. The same procedure is used in social measurement; indeed, the title of the annual publication "Social Indicators" underscores the approach used by the U.S. government in providing a description of national social conditions.

The system requires a series of selections. What classes of actions and areas of impact most appropriately describe the company's social performance? What specific actions and impacts are properly indicative of performance? What particular aspects of those actions and impacts are appropriate indexes of their consequences? What measures most appropriately

describe them? For example, should employment actions be covered? If so, should hiring information be considered a significant indicator with respect to minority employment? What attributes of hiring should be measured? In what terms should they be described? Will the resultant information help to provide a meaningful profile of the company's actions and impacts?

The social indicators used in an initial system should relate primarily to matters of significant social concern. The specific indicators selected by an individual company should, therefore, reflect general social concerns and the nature of a particular company's operations. More often than not, they will not directly correspond with the macroindicators used for national social measurements as, for example, those used in "Social Indicators."

Multiple Measurement Units

Another major characteristic of the initial system will be its use of a variety of units of measure or, where more appropriate, verbal descriptions.

Ideally, all social measurements would be made in, or converted to, a common unit—either dollars or a special unit like a social measurement utile (SMU). In such a system, specific actions and impacts would be measured in units which were readily understandable in terms of the characteristics of the specific matter being measured. Subsequently, they would be converted to a common unit. Such measurements could then be compared, added, subtracted, traded off, or otherwise analyzed mathematically.

The initial system we foresee will fall far short of this reduction. The end products will most often be measurements or, if necessary, verbal descriptions expressed in terms appropriate for the individual actions or impacts. There will normally be no attempt to convert measurements not originally made in dollars to dollars or to SMUs because of the lack of agreement about the rates of conversion that should be used and the more fundamental belief that it is not the role of the measurers, but of the users, of data and the social and political processes to decide what the relative values should be.

No doubt, however, some will wish to construct indexes or profiles of social performance for specific companies or groups of companies by a process that, in some respects, is not too different from converting data to an SMU. The results of such efforts should be useful, much as are the point values developed in some job evaluation systems. However, those develop-

ing and using these indexes should recognize two limitations: (1) they will be using scales of values that have far from universal acceptance, and (2) the index they develop can be interpreted properly only when its method of computation is well understood. The initial system proposed in this book does not include such an index.

Impacts on Social Conditions and Quality of Life

In the initial system, most of the measurements will relate to those conditions in society that are commonly accepted as having a major influence on the quality of human life. Thus, the initial system will make use of a "theory of social sets," by which business actions create impacts on social conditions that in turn are believed to have an important effect on the quality of life of those affected.

The initial system will deal with impacts on social conditions for several reasons. First, there are enormous problems involved in measuring quality of life in terms of such illusory, often intangible, characteristics as are set forth in Exhibit 2-2. Second, business actions usually do not affect quality of life directly, but rather do so indirectly by bringing about changes in the conditions within which individuals live. Third, in a complex world, where it is often very difficult to identify to what extent a single company's actions affect social conditions, it is even more difficult to establish a company's share in changing the quality of life. Finally, it is much more useful for management in its decision-making processes to think in terms of something with the more objective characteristics of a social condition. Exhibit 2-3 suggests a number of social conditions that a variety of sources have identified as important. They can be seen to be, for the most part, more objective and more nearly like the consequences that corporate executives would associate with the actions of companies, government, and nonprofit institutions than are quality-of-life characteristics.

There are, of course, dangers inherent in restricting measurements to social conditions. The greatest is that the relationship between a social condition and quality of life may not be what is expected or that it may vary significantly among the various publics and constituencies affected. In fact, substantial arguments about the relative importance of various conditions are to be expected.

Measurements of Actions and Immediate Outputs

As has been noted, the envisioned social measurement system rests on the notion of a social set—the relationships between business actions, their impacts, social conditions, and the various publics whose environments are affected. A modification of the initial system may be needed should the measurement of impacts on social conditions prove excessively difficult. The result might be measurements of corporate actions or the immediate "outputs" of these actions, and the use of these measurements in lieu of measurements of impacts on the social conditions themselves. An example of an action would be the steps taken to purify discharge water; the resources used would be the payroll, chemical, electrical, depreciation, and other costs incurred. The immediate "output" would be the quantity of nitrogen and other compounds eliminated from the water discharged. The social condition would be the change in the quality of water available to those who would use it. The quality-of-life effect would be the impact on the health, happiness, and so forth of those using the water in different ways.

Information about efforts and immediate outputs is useful in its own right. It is particularly helpful in developing data on corporate actions and in making internal evaluations of cost/effectiveness. On the other hand —as both corporate and government experience shows—drawing inferences from this information about impacts made on social conditions and quality of life entails a considerable risk of error. The relationships can often be mistakenly identified or will remain unclear. However, less than ideal though it may be, the initial system will, at times, require that such measurements be used.

"Economic" versus "social"

It should be noted that the initial system does not distinguish clearly between "economic" and "social" impacts.

Some would say that this is not surprising, for an economic benefit is, in fact, one type of social benefit. Others would say that nothing of concern to society is outside the domain of economics. Still others would say that the economic and social impacts of business actions are so interwoven that identifying each is bound to be analytically arbitrary and logically futile.

The definition of "social" implied by the initial system is clearly a broad one. It includes positive and negative externalities—the unpriced effects resulting from actions taken for private benefit for which compensation is neither paid nor received. As such, for example, it includes the uncompensated damage suffered by a neighborhood as the result of plant pollution and the positive spillover of such corporate actions as the training of community personnel. However, it also includes a number of priced actions—actions whose costs and income are reflected in the financial affairs of the company—when they can better be revealed in terms of "the social concerns of society" than by their normal classifications and descriptions for financial statement purposes.

There is an implication in the foregoing discussion that the second group of items, "priced actions," can be divided between those actions or portions of actions that are "purely economic" and those that are "purely social." The latter would, under one theory, consist of those actions or portions of actions designed to achieve social objectives other than those that would be sought by corporate executives with a zero social consciousness, in the absence of compulsion. Under other theories, the "purely economic" standard or cutoff point would be set at some other level, but the basic notion would remain: that a dividing line either would be self-evident or could be established.

This idea obviously is fraught with difficulties. To many economists, the notion is conceptually unsound, for they do not accept the idea that a profit-maximizing company would become involved with social actions that were economically unessential. To others not particularly concerned with the conceptual problem, the measurement problems posed by the need for sophisticated and not necessarily definitive analysis and the establishment of a line of demarcation would remain. The problem is an acute one —perhaps unsolvable in any absolute sense. The initial system dodges it. The initial system acknowledges that the distinction between economic and social will often be blurred and obscure. Sometimes, in the initial system no distinction will be made; on other occasions, a distinction will be made on the basis of one or another standard of comparison. And, in other instances, an economic measurement will be selected for a social impact because it effectively measures both the economic and the social and is, therefore, a useful surrogate. The results will be far from perfect, but the approach will provide a basis for beginning.

If this were a perfect system in which the (perfectly computed) social performance results of a company were to be added to its (perfectly computed) financial results to get some sort of combined results, the distinc-

tion would be of importance. This is hardly the situation. Economics will not be considered as distinct, and the question of economic versus social will be dealt with pragmatically. For that reason, economic matters are included in lists of social conditions, and impacts and actions of both types are discussed in this book when they possess attributes that are socially important. "Social," thus, will be applied to an action and impact of either an economic, psychological, or sociological nature as long as it is of significant concern to people. It is on this basis, for example, that salaries and wages are of social interest and that such matters as employee safety and the quality of work experience are considered not to be entirely encompassed in the economic payment of salaries and wages.

Neutrality

A system that is neutral will provide data that can be aggregated or disaggregated or otherwise analyzed in whatever area is of interest to the user, in accordance with whatever scale of values a particular user specifies. The system will be completely flexible, without open or undisclosed bias. The developer of the information would not, under those circumstances, decide what is important and summarize the data accordingly. Equally, the developer would not select bases of comparison or draw conclusions based on comparisons with them, but would also leave that up to the user. The measurement system and the data would leave all the options up to users, who would be free to make their separate choices based on the information of interest to them and the scale of values they wish to employ.

The initial system cannot approach this degree of neutrality. It cannot collect all the data necessary at an economically feasible cost nor describe it so completely that it would make an indefinite number of analyses possible. Instead, the initial system is based primarily on deciding what is important and then identifying, collecting, and analyzing the data only to the extent required for those purposes. The collection and analysis of the data presumably would be carried out fairly, honestly, and accurately, and the results presumably would permit more than one, but a still limited, set of analyses and conclusions. Only in the latter sense, would it be impartial or unbiased—but it would be within a basic framework of characteristics, the choice of which introduces some loss of neutrality.

Given these "selected" characteristics, and their application by measurers and corporate executives with their *own* biases, the results must fall short of complete neutrality. Both the approach and its consequences unavoidably introduce a bias in the direction of one set of values or an-

other. In fact, the same can be noted about this book. Undoubtedly, a certain bias exists—reflecting one set of notions of what is important in measuring corporate social performance, while avoiding any indication of the level of achievement that is necessary to qualify as good, satisfactory, or unsatisfactory. Corporate executives, deciding that other things are more important, can alter the criteria to be used in their companies. This, in effect, changes bias, but it does not eliminate it. Guidelines are suggested in the latter part of this book which can reduce the bias to a considerable extent.

Summary

The ideal system for measuring corporate social performance is clearly unattainable in the near future. In some respects, it will never be approached, let alone realized. There is, however, much that can be achieved —an initial system that is practical and a variety of incremental improvements that reasonably can be anticipated over the next twenty-five years.

The ideal and initial systems and the expected improvements are described in Exhibit 2-1. In some respects, to compare them is unfair. Human systems, especially initial human systems, rarely approach the ideal. A fairer comparison is with what is reasonably achievable. In this respect, the initial system fares considerably better. If, as we believe, the initial system and the improvements of the first twenty-five years will result in achieving a good deal of what ultimately will be found to be attainable, the initial system will represent a considerable accomplishment.

On such a scale, the initial system represents a major step, even though it leaves many steps, some large and some small, to be taken. Its best characteristics are (1) that it is practical, (2) that it can be developed and implemented in stages, and (3) that almost from the outset, it can be useful.

Exhibit 2–1

Comparison of Ideal and Initial Systems; Most Likely Changes in Next 25 Years

Characteristics of ideal system	Characteristics of initial system	Most likely changes over next 25 years
1. It would be a system based on measurement.	1. It will be a series of loosely related subsystems, frequently similar in nature, not capable of integration into a single system, using a combination of quantitative measurements and narrative descriptions.	1. An enlargement of subsystems, approaching but still falling short of being a single system, employing more, but not complete, quantification.
2. It would produce information about each and every cause/effect relationship arising out of the impact of any defined entity(ies) on the quality of life of all significant elements of society.	2. It will produce information about the impacts of a relatively limited number of actions of the company on conditions which are believed to have a significant effect on the quality of life of all of society or of those major elements of society who are directly affected in an important manner. Such actions and impacts will be selected as indicative of corporate social performance, primarily in areas of significant social concern.	2. A considerable increase in the number of actions and impacts on conditions which are included and, particularly if "impact sets" can be developed, a substantial increase in the number of more complex impact relationships which can be measured and described. The information will a. Probably remain related to the company. b. Probably continue primarily at the level of the social condition, but with some expansion as indicated above and a much better understanding of the relationship of conditions to quality of life. c. Increase in the number of subgroups with respect to which measurements will be made.
3. The resulting information would be expressed in quantitative terms that would be separately useful for the immediate pur-	3. Such "measurements" will be in both quantitative and nonquantitative terms which are separately useful for many aspects of the individual matters being measured, but cannot be ex-	3. A considerable increase in the numbers and types of areas and matters which are measured or described, with increasing quantification using a wider range of techniques which employ ap-

poses of the measurement, and also be initially expressed in, or converted to, a single common measurement unit.	pressed in or converted to a single common measurement unit, either for a series of closely related matters (except by the use of some tenuous, essentially subjective conversion factors) or for a series of less closely related matters or for all matters.	propriate measurement principles and scales and are considerably more useful for the individual matters being measured, but still, except in limited and closely related areas, are unable to use a single measurement unit or to convert other measurements to it.
4. Measurements would be made	4. Measurements will be made	
a. For the duration of the impacts.	a. Primarily for the initial period(s) of impact (when a rapid falling off is expected), and very infrequently for a longer period (in those instances where the impact deteriorates slowly or the cumulative impacts are large or delayed). When measurements are of actions rather than of impacts, duration will be omitted entirely.	4. a. A considerable improvement in dealing with longer-run effects, because of a greater knowledge of them and their duration over time.
b. In a manner giving appropriate recognition to timing differences.	b. In a manner infrequently compensating for timing differences and then rather crudely.	b. Routine adjustments for timing differences as a result of resolving the difficult, essentially philosophical issue of the rate(s) of social discount to be employed and a greater knowledge of the duration of the impacts.
c. Using direct methods; that is, without surrogates.	c. Using methods which are usually direct as to what is being measured but often are indirect (even inferentially unproven) as to the quality of life or social condition characteristics they are intended to measure.	c. Greater use of direct measurement; indirect and surrogate measurements will have more clearly "proven" relationships to the matters "really" being measured.
d. To be consistently applied across entities and constituencies and over time.	d. To be rather consistently applied across entities and constituencies to the extent that the measurements are based on governmental requirements, but otherwise varied because of matters of definition, etc., to a point where their consistency will be doubtful.	d. Greater consistency, as enhanced by more precise, agreed-on definitions, techniques, matters to be measured, and so on.

Exhibit 2–1 (cont'd)

Characteristics of ideal system	Characteristics of initial system	Most likely changes over next 25 years
e. In a manner neutral as to any particular set of social objectives.	e. In a manner which will sometimes be neutral, sometimes reflect the social objectives embodied in governmental laws and regulations, and sometimes reflect managerial philosophy or its perceptions of general consensus.	e. A somewhat greater orientation toward the social objectives embodied in governmental regulations or general consensus but still retaining, in some areas, strong elements of managerial philosophy.
f. Requiring only a minimal expenditure for measurement costs.	f. Requiring only a small expenditure for measurement costs—but only because the measurements attempted are rather crude and incomplete. If more is attempted, costs will rise rather rapidly.	f. Measurement which is more costly in total because of the greater quantity and quality of the information produced but less costly "per unit" as the production of the information becomes routinized.
5. The information thus produced would permit both the entity's management and outsiders	5. The information produced will	5. The information then produced will
a. To engage in efficient decision making, using sound socioeconomic planning and control procedures.	a. Assist, to a moderate degree, in decision making. It will be far better than nothing but still be too incomplete and uncertain to approach the level of analysis and planning suggested for the ideal system. Many subjective judgments will be required. The information will be far more useful in dealing with limited areas and specific judgments than with broad problems and broad judgments. It will likewise usually be more readily accessible to the company's management than to external groups—other than the government.	a. Be much more useful in internal decision making, assuming a concomitant growth in organizational capability. The information will be more complete and reliable as to both internal actions and outcomes and their external impacts. While the cost/benefit analyses will lack the sophistication of fixed asset expenditure decisions, for example, the methodology and to a considerable extent the data will be mixed with a considerable amount of subjective judgment in what could accurately be called socioeconomic planning. Outsiders will have a considerably better basis for making judgments, but they will not come easily.

b. To evaluate an entity's past, present, and intended future actions, using normative and nonnormative bases of comparison.	b. Be helpful in varying degrees, primarily because of differences in the quantity and quality of the information. It will be most helpful in making internal comparisons of the company's own performance over time or of the company's performance against a government-established regulatory standard or norm. Intercompany comparisons (especially within the same industry or geographical area) will be somewhat more difficult but still quite practical, particularly when there are government requirements which will bring about reasonably comparable reporting. Comparisons will, however, often be very difficult if not impossible where the data are lacking or are either inconsistent or of dubious quality and bases of comparison (particularly norms) are lacking or differences in conditions are inadequately taken into account.	b. Permit longitudinal comparisons to be made rather routinely for those areas where measurements exist. Comparisons among companies or groups of companies will likewise be made, but the problem of making allowances for differences in conditions will be present. More norms (justified or not) might be expected to emerge out of government regulations, self-appointed interest groups, general consensus, broad-based comparisons of actual or leadership performers, and so on.
c. To continue or, if need be, to modify the entity's "contract with society."	c. Help to modify the entity's contract with society to some extent. Information about compliance with governmental regulations will tend to modify company performance where violations or deficiencies exist. Information might also lead to new or different government regulations for all of business or like businesses or to pressures on the company or industry by nongovernmental groups. However, since "contract" in general is often a loose philosophical notion and since the available information will often be inadequate, both the evaluations and the modifications will be very incomplete.	c. Permit the company's compliance with government regulations to be monitored effectively; it might also permit or encourage more sophisticated or extended regulation and monitoring. Since the emergence of a more clearly defined "contract with society" is related to more factors than social measurement, which helps to implement it rather than to provide the impetus for it, it is hard to tell what changes will occur. Clearly, however, social performance will, in some respects and in some relationships, be taken into account—even if less formally.

Exhibit 2–2

Grouping of Quality-of-Life Factors

1. Love, caring, affection, communication, interpersonal understanding; friendship, companionship; honesty, sincerity, truthfulness; tolerance, acceptance of others; faith, religious awareness.
2. Self-respect, self-acceptance, self-satisfaction; self-confidence, egoism; security; stability, familiarity, sense of permanence; self-knowledge, self-awareness, growth.
3. Peace of mind, emotional stability, lack of conflict; fear, anxiety; suffering, pain; humiliation, belittlement; escape, fantasy.
4. Sex, sexual satisfaction, sexual pleasure.
5. Challenge, stimulation; competition, competitiveness; ambition; opportunity, social mobility, luck; educational, intellectually stimulating.
6. Social acceptance, popularity; needed, feeling of being wanted; loneliness, impersonality; flattering, positive feedback, reinforcement.
7. Achievement, accomplishment, job satisfaction; success, failure, defeat, losing; money, acquisitiveness, material greed; status, reputation, recognition, prestige.
8. Individuality; conformity, spontaneity, impulsive, uninhibited; freedom.
9. Involvement, participation; concern, altruism, consideration.
10. Comfort, economic well-being, relaxation, leisure; good health.
11. Novelty, change, newness, variety, surprise; boredom; humorous, amusing, witty.
12. Dominance, superiority; dependence, impotence, helplessness; aggression, violence, hostility; power, control, independence.
13. Privacy.

SOURCE: Norman C. Dalkey and Daniel L. Rourke, *Experimental Assessment of Delphi: Procedures With Group Value Judgments* (Santa Monica, Calif.: Rand Corporation, 1971).

Individual and Collective Social Conditions Affecting Quality of Life

Individual conditions (for the individual and his family) that are closely associated with or that determine the quality of life

1. Physical and mental health.
2. A productive and satisfying role in society based on training and education adequate to equip the individual for such a role and the opportunity to use one's skills and talents.
3. An "adequate level of income"; thus, employment, producing work satisfaction under conditions of safety.
   Income support when the individual is unable, temporarily or permanently, to provide an "adequate level of income."
4. Satisfactory housing.
5. Time and opportunity for leisure.
6. An adequate supply of the "required" goods and services.
7. Risk protection, or the opportunities for restoration, particularly in the areas of health, income and wealth, and personal safety.

Collective conditions that are closely associated with or that determine the quality of life

1. Physical environment.
   - Satisfactory environment, including not only the quality of air, water, and so on, but also such matters as noise, aesthetics and beauty, and waste disposal.
   - Ecological balance including wildlife and land use.
   - The availability of natural (particularly nonrenewable) resources.
2. Social environment.
   - Sense of, and structure for, the maintenance and modification of social, including moral and religious, values.
   - Sense of, and structure for, communities based on geographical/political considerations and ethnic and other commonly held interests, backgrounds, and beliefs.
   - Culture, history, aesthetics, and the arts.
   - Growth in theoretical and applied knowledge.
3. Political environment.
   - A government which is responsive and responsible, with the participation of an informed constituency and opportunities to express both approval and dissent.
   - Governmentally provided common goods and services or facilities for transportation, health and sanitation, education, recreation, public safety, and justice.
   - An appropriate legislative and regulatory system and body of rules and laws.
4. Economic environment.
   - Strong businesses and business community that are producing and marketing "appropriate" goods and services, in "appropriate" variety, value, availability, and so forth, under conditions which are "socially responsible" to all concerned publics; and that are effectively and efficiently using the resources entrusted to their use and are raising living standards through increased productivity.
   - "Reasonable" equity in the distribution of income and wealth.

three | Some Considerations in the Development of an Initial System

Chapter 2 examined an ideal system of social measurement, noted the major obstacles it faces, and discussed the principal characteristics of a system of social measurement that might be achieved within the next decade. It outlined an initial system in the following terms.

The initial system will measure quantitatively or describe verbally many, but by no means all, of the social impacts that arise out of corporate actions significantly affecting social conditions and publics. The initial system will measure impacts on social conditions having a significant effect on the quality of life of various publics. Those actions and impacts measured will be chosen because they serve as indicators of social performance in areas of significant social concern; they will not be all-inclusive. The system often will be opportunistic and eclectic, using whatever techniques and measures are available so long as the result is useful. In the absence of a priori definitions, standards, and principles, divergent practices and experimentation are to be expected; it is hoped that they will gradually develop and coalesce into generally accepted social measurement principles.

Such a system employs the concept of a social set (the relationships by which business actions create impacts on social conditions which, in turn, affect the quality of life of individuals and groups of individuals). It relies on numerical and verbal description. It recognizes that the goal of measuring all impacts of all actions upon all conditions and all publics, using standard techniques and units, considerably exceeds current capabilities and that compromises and modifications are inevitable.

This chapter discusses the elements of the social set—business actions, impacts, social conditions, publics—and their interrelationships. It describes how that concept can be helpful in identifying and selecting the actions, impacts, conditions, and publics with which an initial system should be concerned and discusses some general principles and techniques of measurement.

The Social Set

The initial social measurement system rests on the notion of the social set. It postulates the sequence shown below.

As a consequence, it requires a combination of business actions, impacts, social conditions, and publics to describe what takes place.

Business actions

The business actions involved in this set are not, as one is initially disposed to think, solely or even primarily related to civic projects and philanthropic activities. Instead, they are primarily business actions that are in the mainstream of the company's operations. Exhibit 3-1 contains a list of business policy issues on which management makes decisions and initiates actions in the course of running a company. They clearly are not peripheral to the company's principal purposes. These issues and others like them produce the kinds of actions with which a social measurement system is most concerned.

Impacts

Impacts are the second element of the set. They occur when the forces set in motion by business actions collide with or act upon social conditions and publics. Most of the social impacts induced by corporate actions are the secondary consequences or side effects of actions undertaken primarily for private economic purposes and, as such, may be good or bad, weak or

strong, immediate or delayed, direct or indirect. They may be psychological, physical, or social. They may or may not be intended, anticipated, or even avoided. The people affected may or may not be aware of the impacts and their sources. The impacts may fall on only those people who are affected by the economic consequences of the business transaction, although in most cases others also will be included. At times, the social impacts may be reflected in the price of the product or service and in the income or expenses of the business entity, although often that may not be the case. The common denominator is that they are the consequences of business actions.

Social conditions

Social conditions, as we shall use the term, constitute that complex set of arrangements within which human beings carry out their individual and collective existence and experience those personal satisfactions and dissatisfactions that are sometimes described as their "quality of life." Social conditions, in total, serve to define the major characteristics of a society and provide the principal modes by which individuals relate to each other and society. They are a mixture of the historical, religious, cultural, social, biological, political, economic, and physical. They, at times, exist in society in physical form; at other times, as in the case of laws and customs, they are essentially intangible.

Many social conditions are affected, for better or worse, by business actions. The list, included in the preceding chapter as Exhibit 2-3, contains a number of social conditions that fall into that category. They cover a wide variety of items that, individually and collectively, affect the quality of life of individuals and groups of individuals. The premise of the social set is that an impact on these and similar conditions indirectly produces an impact on the quality of life of people. It supports the conclusion that determining the nature and extent of impacts on social conditions represents a worthwhile accomplishment for an initial system, even if the ultimate impacts on the quality of life of individuals are not measured.

Publics

In the last analysis, social impacts are made on individuals. For purposes of social measurement, however, individuals are usually thought of in terms of groups—as publics, whose identity is established as the result of a common relationship to a business action. Publics normally carry such labels as

"employees," "employees' immediate families," "suppliers of goods and services," "customers," "investors and major owners," "residents of a neighborhood," or "residents" of a city, county, state, nation, or the world. Publics include future generations as well.

The same individual can be a member of one or more different publics depending upon the impact being considered. For example, a person may be considered a member of a single public—a customer—or may be considered within a multiple relationship as an employee, investor, and resident of an immediate neighborhood.

The initial system will be primarily concerned with determining impacts on significant social conditions. The influence of "publics," while important, will be indirect. First, those social conditions will be selected that are known to be or believed to be important to significant publics. Second, when uniform social conditions do not exist for all individuals within a public, appropriate subdivisions will be required to correspond to the impacts made on different sub-groups or, as we shall call them, constituencies.

A public is not, after all, a single undifferentiated mass of individuals even when its principal membership characteristic is the role of employee, or customer, or neighborhood resident. Just as impacts on employees often will differ significantly on the basis of income, age, sex, race, health, and skills, so will impacts on other publics differ in their own ways. Obviously, there must be practical limits to measurement refinements and to the number of constituencies that can be given consideration. However, when the interplay of specific conditions and specific groups of individuals is substantially different, individuals cannot properly be treated as a homogeneous group.

The Selection of Actions, Impacts, and Conditions

The first task of the developer of an initial system will be to decide what is to be measured—what actions, impacts, social conditions, and publics are to be included in the system. In short, decisions must be made about how to put the concept of the social set to work.

Ideally, the system designer would examine each business action, identify all of the social impacts it could create, and establish their respective magnitudes. In such an all-encompassing system, each action and its impacts would enter into the determination of the company's social performance.

Practically, the situation is vastly different. The system must be selective

—choosing out of the mass of social impacts those which are both measurable and significant. "Significance," in turn, is to be established primarily in terms of (1) the nature of the impacts, (2) society's indication of its concern with impacts of those types, and (3) the magnitude of the impacts created by the company's actions.

Without question, the selection problem would be simplified if the developer of a social measurement system were to receive from external sources a list of items considered to be of sufficient social significance to be covered by the system. This would not only remove the developer's need to carry out the research necessary to prepare such a list but also reduce the uncertainties, value judgments, and accusations of self-serving that often accrue to an internally generated document. The arguments in favor of external development are, in fact, so persuasive in terms of avoiding duplicated research and difficult, value-related problems that the major question is not so much whether to use a list as whom it should be prepared by in the first place.

Such lists are beginning to emerge. They arise out of studies of the coverage given to specific business-related social concerns by selected magazines and newspapers. They are developed through opinion surveys conducted on a continuing basis by Gallup, Harris, Roper, Yankelovich, and similar firms. They appear in the reports of governmental study commissions or in the rules and regulations of governmental bodies. They are developed by research studies of selected areas or through more general reviews of the business and social scene. They arise out of the sensitivity of corporate executives to public reactions.

As an example of what such lists might contain, the authors of this book have prepared lists of items that are frequently thought to be important. The reader is referred to the list of exhibits for titles and page references for these compilations.

An externally prepared list would have to be tailored to reflect the measurement efforts and capabilities of the individual company. It would also need to be modified to reflect the characteristics of the individual company and its industry, so as to add or, more likely, subdivide items of major importance and eliminate those of minimal consequence. For example, no one would expect the impacts of a paper-producing company and a professional accounting firm to be identical, although they would have important areas, such as those relating to employment, in common.

In order to modify an externally developed list or to create its own, a company normally would use the concept of the social set, starting at any of its elements and working forward or back. It could, for example, start

with the company's principal decisions or actions and move forward to the impacts made on major social conditions and publics. Or, it could start with what it believes to be the major conditions and publics it affects and see which actions most affect them. Or, it could start with probable impacts and move in both directions. Or, preferably, it could start at each point and mesh the results together. The result could be conceptualized as a matrix in which the decisions or actions and the publics or social conditions form the axes with the impacts to be entered in the cells, somewhat like that shown below.

Decision or action	Social conditions or publics							
	A	B	C	D	E	F	G	others
1			●		●		●	
2		●	●	●				●
3	●		●			●		

● = Impacts on social conditions and publics where applicable.

Obviously, a matrix that would be appropriate for a company of even moderate size would be enormous. Thus, an overall matrix could serve as a summary, supported by more detailed matrices and/or by supplemental memoranda for separate organizational units.

Another way to identify significant sets involves analyzing a specific function in order to spot the important decisions and actions with social implications that flow from it. A useful variation of this approach, which also has some elements of a social responsibility audit associated with it, is to identify those aspects of a decision or action for which "social alternatives" may exist. Such an approach is illustrated with respect to one phase of one function in Exhibit 3-2.

Whatever the technique, however, a self-generated or modified external list of actions and impacts is required. Such a list will imply judgments about not only the importance of the different items to society but also about the magnitude of the impacts created by the company's actions.

Without actually making measurements, the magnitude of impacts will be uncertain, but by using logic, special company-sponsored studies, the experience of others, and generally available scholarly research, one can make sufficiently accurate estimates of magnitude to enable work to be started. Since the system will develop gradually, the magnitude of impacts can be reestimated at a later date and whatever changes are required can be made.

A few additional comments about actions, impacts, conditions, and publics may be helpful. In most cases, the procedures outlined will be ade-

quate to identify the actions that should be covered by the system. However, there are several situations that will be encountered that will be more difficult or controversial. These are inactions, supplier actions, customer actions, and new or modified actions.

Inactions

The initial system clearly should be concerned with corporate actions. Should it also be concerned with corporate "inactions"—the failure of the company to undertake something? The question is a complex one to which the answer is a qualified yes. Inactions about which measurers should be concerned are typified by the following:

- Inactions in areas perceived as important by a significant portion of society, for example, nondiscriminatory hiring or energy conservation.
- Inactions in areas where many companies in the same situation do act, for example, product warranties or certain types of charitable contributions.
- Inactions closely associated with some action of the company, for example, failure to remedy a dangerous manufacturing condition, or to reduce noxious odors from a production process, or to alter a dangerous product design.

The distinctive feature of each of these cases is that they are so closely linked to the corporate action as to be virtually inseparable or are so widely perceived by society as desirable as to constitute ordinary standards of performance. For example, a lack of concern for energy conservation is characteristic of the act of energy consumption, and the failure to remedy a dangerous manufacturing procedure or correct a dangerous product characteristic is an attribute of deciding to carry out or continue a dangerous action.

More remote instances of inactions, on the other hand, are quite different. One would not, for example, expect that the failure of a company to embark on a major low-cost housing project in its neighborhood should be a measured "inaction" since public service activities on such a scale are unusual. Participation in civic and charitable activities is a normal characteristic of corporate life, but the failure to participate beyond a customary or moderate level would not seem to be an "inadequacy of corporate operations."

Between these two extremes, there will be cases or degrees of inactivity that will need to be individually considered.

Of course, cases of activity and inactivity should not be measured together, or "double-counting" will result. Including both the quantity of product-related accidents and the failure to achieve a 100 percent product-related safety record would be "double-counting." However, the failure to undertake research, product redesign, customer education, or other steps in the face of evidence that a product was unsafe could be considered to be social inactivity together with the "action" of causing a number of product-related accidents during the period.

Supplier actions

Another interesting question is whether a company should consider, for purposes of social measurement, the social consequences of actions taken by its suppliers when the goods and services purchased are used in the manufacture and distribution of the company's product. For example, should the purchaser of electric power or of sheet steel be assigned a share of its supplier's pollution?

At least initially, the answer would seem to be a qualified no. This is based, in part, on pragmatic grounds; if an attempt were made to allocate portions of a supplier's performance among its customers, the whole process of social measurement would become too cumbersome. First, the supplier, as the only party in possession of the facts, would have to be both willing and able to pass this information to its customers. And second, no company could determine how much to pass on to its customers until it had been advised of pass-ons by its own suppliers—with the attendant likelihood that circular relationships would require that all pass-ons be determined simultaneously by a massive allocation/reallocation procedure. In addition, this conclusion is based on the belief that it would be more useful to identify the social consequences where they are most visible—with the company that produced them and presumably could do the most about them.

There is one major class of exceptions to this, however. It exists when the purchasing company dominates the relationship with a supplier to a point where the company not only specifies the social conditions of its supplier (for example, the percentage of its minority employees), but also deliberately incurs or avoids the related economic costs. This situation often occurs where companies dominate an independent dealer/distributor organization; in some companies, however, it can be of major importance in

relation to manufacturing and construction as well. (For further development of this issue, see chapter 7.)

Customer actions

A companion issue involves customers. Should a company, for purposes of social measurement, consider that its area of responsibility includes the impacts arising out of the use of its products by its customers? Would the answer depend on whether the customer was another business, a government or nonprofit institution, or a member of the general public? Would it depend also on whether the use was the one intended, an easily anticipatable abuse of it, or, perhaps, an unanticipated misuse?

In a pure system, in which all of the producing and consuming elements would be measured and reported and combined totals would be developed, the assignment of responsibility would be critical to avoid omissions or multiple counting. In the initial system, however, pragmatic compromises are acceptable. As will be evident in various chapters, particularly chapters 4 and 8, we have considered that selected aspects of consumption can properly be associated with the producer. These relate to (1) various aspects of product purpose and design, (2) intended or reasonably anticipatable rather than abnormal use, and (3) consumption by the ultimate consumer or general public, rather than by intermediate producers of goods and services. The distinctions undoubtedly will not always be clear but the general intention is to provide as pragmatic a treatment as possible.

New or modified business actions

Finally, there is the question of new or substantially altered business actions. Areas of social concern are not static; neither are corporate activities and their impacts. The objects of social measurement should be expected to change. However, while the expectations that society establishes for business change with time, few social concerns seem to be abandoned. Instead, they usually are institutionalized through law or custom and become a normal or regular part of business activities and business costs. The elimination of child labor through establishment of minimum age laws is a case in point —the change was absorbed into the economic system and its cultural base.

What is considered "social" at a given time is likely to involve many ideas that are in transition or on the frontier of developing social concern. This means that there are changes in what is considered to be socially im-

portant actions. Social concern follows moving targets. Often these targets move or change in response to sudden occurrences, such as the need to conserve food or energy. At other times, they respond to changes in general awareness of underlying human conditions and expectations—as in the case of clean air or equal opportunity. Such social concerns usually first emerge as significant issues upon which the more perspicacious companies take action. They then develop to a point where they require action by all, and finally they fade away through solution or a reduction in expectations or become regularized into the normal conduct of business activities. At this latter point, social concern for the impacts of the actions lessens, and actions are woven into the fabric of corporate activities that are more or less taken for granted. That is, they become part of the "economic" conduct of the firm.

In selecting actions for the initial system particular attention should be paid to *emerging* areas of social concern. Social concerns that have already been addressed and thus integrated into the business culture will require less attention unless there is economic, legal, or social pressure.

Lists of some principal actions usually found to be important are included in this book, and several methods for validating and/or modifying these lists are described. They should provide the developer with much of what is required for purposes of the initial system. The result should be the selection of the principal socially relevant actions of the company, for example—

- Actions taken in the normal course of business that produce (good or bad) social impacts, either directly or as side effects, in areas of current social concern.
- Actions taken to modify, supplement, or overcome normal business actions in order to reduce the bad effects or to enhance or create good ones.
- Certain business inactions, customer actions, and special types of supplier actions.
- Public service activities.

Impacts, conditions, and publics

The first thing that most system developers notice about impacts is that they are difficult to localize. The impacts of business actions spread out to affect the lives of individuals composing different publics in ways that

range from simple to complex and cover considerably different periods of time.

Even what seems to be a limited corporate action—such as providing increased employment stability—affects the lives of specific publics, such as employees and their families, suppliers and their employees, customers, owners, and investors, as well as the immediate and the larger communities in many ways. If this seems to be a complex set of publics and impacts, consider the radius of impacts that would arise from the permanent closing of a major plant in a small city.

The values (and the weaknesses) inherent in the simplifications of the initial system should begin to be apparent. These simplifications involve the following:

1. The system will measure impacts on social conditions believed to be of major importance in determining the quality of life of individuals.
2. The system will not measure impacts on all conditions but rather on those conditions selected as indicators.
3. It will be concerned primarily with those conditions receiving first-order impacts and encompass second- and third-order impacts only when they are traceable and significant.
4. Although the diversity of human characteristics might seem to argue for an almost endless differentiation of social conditions in order to correspond with all the possible constituencies, the initial system will severely limit the number of subdivisions by recognizing only major differences.

It is apparent that how the system designer defines the social conditions that are to be measured is crucial. Let us assume that the social conditions relating to the plant closing cited above are described as (1) having a job, (2) having stable employment, and (3) having an at least "adequate" level of income from the employee's point of view and that the secondary impact is on stability of employment in the remainder of the community. Under these conditions, the impacts arising from the company's action can be identified and measured rather easily. Information of this type could be developed for the company as a whole. It also could be broken down to reflect more specialized social concerns. Thus, data on employment stability might be developed for minorities, the very young or old, the unskilled, the handicapped, and other constituencies. Data could also be broken down by community of employment.

Using this approach, the system designer should be able to identify a

number of important social conditions that can be measured. Many of them are listed at various points throughout this book. This is not the most sophisticated approach that can be taken defining social conditions. It is, however, a pragmatic approach that is within present system capabilities.

This approach is subject to criticism, however. It often results in using social conditions (for example, stable employment) that are so defined as to be essentially rewordings of corporate actions; as such, they do not really identify and measure the consequences of actions on various publics. In addition, it ignores the fact that with a bit more effort social conditions could be defined in terms that would go part of the way toward overcoming the first objection and still be within present technical capabilities.

There is no question but that the description of a social condition as employment stability is merely a rewording of actions taken to achieve it. Except to a very limited extent, it does not identify the effects that changes in that social condition have on other social conditions, nor does it attempt to measure the magnitude of the impacts thereby created. Describing the impacts of actions taken to reduce the undesirable effluents entering a river in terms of the social condition of "having a satisfactory water environment" provides a similar example. It reflects the impact on the primary social condition but does not do so for such secondary conditions as health, recreation, or the aesthetic environment.

The first problem the system designer will face in dealing with this criticism is that there are many types of corporate actions and that, for most of these, all or even most of the social conditions affected are not known. The second problem is that, even where they are known, frequently there is great difficulty in measuring changes in them and in separating one company's impacts from those of all other sources.

Once again, a pragmatic solution seems best. The designer will probably choose to define social conditions at the level used in the examples (such as having a job or having employment stability). He or she will probably choose to do so in all areas so that there will be consistency throughout the system. In addition, where the information is important and an adequate knowledge of impacts and measurement techniques is available, successive levels of impacts on social conditions will be included.

The designer will also have to decide whether particular social conditions are reasonably applicable to all members of a public or are sufficiently different among identifiable groups of persons to warrant the use of constituencies. For example, the designer will have to decide whether to treat employees in total or to deal with them in such separate constituencies as minorities, the aged, the handicapped, or women, or whether to separate

geographical areas to differentiate among the subgroups affected by air, water, or noise pollution.

Often this decision will reflect government requirements or the perceived concerns of various groups with which the company desires to or is required to communicate. On other occasions, such as when an action affects a community, the designer will have to decide into what constituencies the community should be divided.

At times, the breakdowns and limits of the constituencies will be relatively self-evident. On other occasions, it will be desirable, if not essential, for the designer to carry out research on the nature and extent of the impacts made on specific individuals and groups before deciding on the constituencies to be employed.

Social Measurement Methods

In addition to dealing with the selection of what is to be measured, the designer will have to consider the measurement methods that the initial system will employ. The choice will have to be made from a collection of methods that leave a good deal to be desired. In fact, the relatively primitive state of development of measurement techniques, in conjunction with some perplexing social and ethical issues, primarily account for the characteristics of the initial system.

The term measurement is something of a misnomer. Description—in the best quantitative and qualitative terms available—is a considerably more accurate indication of what takes place.

The availability of information

Some measurements or descriptions will be quite satisfactory; others will fall throughout the rest of the acceptability spectrum. While they are difficult to generalize upon, the following assumptions might be considered by the developer of an initial system.

1. A great deal of actual or potential information is available. Much will have been developed to comply with normal managerial purposes, to demonstrate compliance with governmental regulations, or to serve a company's long-standing interest. At times, this information will ex-

actly suit the social measurer's purposes. However, more frequently, it may require modification or extension to be useful. In addition, a large amount of raw data exists that, with additional effort, can be analyzed and summarized to serve the social measurer's needs. Finally, however, there are substantial gaps where information is not now collected. At times, collection can be arranged, but there will be occasions where the technical difficulties incurred or the cost or the sensitivity of the data will prevent or seem to prevent collection.

2. A great deal more information will be available about corporate actions and their immediate consequences than about their impacts on the quality of life of those affected. The decision to base the initial system on impacts on social conditions will be helpful in overcoming this problem, although it will still leave a question as the extent to which social conditions and the impacts upon them should be subdivided. Data will usually need to be developed to indicate the extent to which impacts made on conditions should be subdivided by the constituencies affected.

3. More information will usually be available about what occurs within the company than outside of it. For example, more will be known about pollutants that are emitted at a relatively few places within a typical plant than about those that arise from products in the hands of thousands or millions of customers. More, likewise, will usually be known about actions taken by a company to bring about some change in social conditions, for they will be undertaken by management within the normal managerial processes of planning, execution, measurement, evaluation, and control. More will usually be known about such relatively localized internal matters as working conditions, for they will be primarily the result of the company's actions rather than those emanating from a variety of sources. And finally, impacts affecting employees are apt to be quite readily discernible from employee surveys because of the special relationship that employees have with the company, assuming that reasonable care is taken to respect employees' rights of privacy and anonymity.

4. Just because more information will be available about internal matters does not mean that a good deal of useful information will not be available or cannot be developed about external matters. Such data will usually deal with impacts or the direct consequences of actions on external social conditions.

   At times, information about external impacts and consequences will be available from the internal records of the company, such as, for

example, when product safety information is reflected in complaints and claims arising out of customer injuries. In a greater number of instances, however, one should expect that special efforts will be required to determine the nature and extent of the impacts that have occurred or that the general public perceives to have occurred. This may involve surveys to collect the responses of those affected or experts' studies of what has or should have occurred. These studies will serve to supplement data normally developed for more usual managerial purposes or to provide information about areas not previously covered. How successfully this can be accomplished will depend, among other things, upon the type of impact involved, the ability and willingness of those involved to provide information, and the separability of the company's impacts from those of others. The information thus obtained will vary considerably, but its primary difference from internal data will lie in the extent to which the company must move beyond internal sources to obtain it. By and large, the ability to collect meaningful external data is increasing rapidly but still has a long way to go.

5. A particular type of information called into prominence by recent events relates to significant violations of the law. Most such actions involve matters with which the company's general counsel will be concerned. However, there are many highly specialized areas—such as those relating to patents, products, safety, and environmental specifications—where more specialized lawyers may be involved. Information about closed, active, pending, and potential lawsuits can usually be obtained —albeit with varying degrees of difficulty. In a society in which the legal process is often used as a method to obtain third-party adjudication of disputes in which no social issues are involved, the problem then becomes one of distinguishing between those suits that are social and those that are not, and then of deciding which have significant social implications.

   Significant criminal violations resulting in convictions or in settlements short of conviction, but with a "cease and desist" agreement or its equivalent (whether accompanied by an admission of guilt or not), will usually be of substantial interest. Civil suits would seem to be more heavily dependent on their subject matter, with a suit between two companies over ownership of patent rights being substantially different from a suit brought by a state over pollution controls or by a federal agency over restraint of trade. However, what should be considered social no doubt will be debatable for some time. At present, one could guess that the definition would be an expanding one.

Material suitable for measurement

The measurement system designer will find ingenuity is a valuable asset when it comes to selecting material that will be useful in measuring corporate social performance. A wide variety of materials will be useful, extending from the general to the specific. As will become evident in subsequent chapters, such material as the following should be considered:

1. Policies and procedures designed to promote a particular social result, the assignment of organizational responsibility for achieving it, and the operation of a procedure to monitor it.
2. Comparisons of corporate practices with government requirements or voluntary guidelines established by trade associations or other business organizations.
3. Comparisons of company specifications (such as for product safety) with those established by authenticating public or private laboratories.
4. Evidences of unsatisfied customer needs and wants.
5. Evidences of the dissatisfactions, complaints, attitudes, and legal actions of individual customers, groups, public interest firms, or government agencies (Federal Trade Commission, Consumer Product Safety Commission).
6. Research studies of the impacts of specific types of actions, such as the introduction of new types of packaging or customer safety programs.
7. Surveys of public opinion and experience.
8. Internal data (dealing with specific social conditions).
9. Violations of local, state, or federal laws or regulations.

Measurement techniques

The system designer likewise will need to use skill and ingenuity in determining what measurements are required and practical. Often, there will be no particular difficulty, but, when there is, there should be no hesitation to be opportunistic, employing whatever techniques are available. The designer should, for example, plan to—

1. Measure actions and impacts directly or, if necessary, indirectly through the use of surrogates and other intermediaries.

2. Relate impacts to social conditions, as we have defined them, rather than to the intangibles of quality of life.
3. Use verbal descriptions instead of quantitative data and the perceptions of affected constituencies rather than only harder, more objective data.
4. Estimate impacts for over a short period in preference to becoming involved in discounting an undiscernible future.
5. Concentrate on what is direct, significant, and identifiable.

Comparisons

The utility of social information increases in proportion to the quantity and quality of the comparisons it provides since the extent of impacts can best be assessed in terms of relativity. The initial system designer should recognize this and search out ways to make meaningful comparisons.

Internal comparisons can be helpful. Comparisons with the past, with plans or budgets, between operating units, and so forth, can provide a measure of the size and direction of change and of the effectiveness of efforts designed to achieve specific social purposes.

Intercompany comparisons are a different matter. The information may not be available because companies may decide, as a matter of policy, to restrict what they will provide to others. Or the information may not really be comparable because it was prepared on a different basis. Or, finally, the information may be difficult to interpret without a knowledge of the particular political, social, and physical environment in which the other company's operations are conducted.

In spite of these general handicaps, some intercompany comparisons can be made. Most likely, if one is to judge on the basis of what seems to be occurring now, these will involve (1) comparisons of data compiled on an anonymous basis for companies in an industry or a geographical region, (2) data published by a public interest firm in one of its studies, or (3) data exchanged informally as the result of personal or corporate friendships. Freedom of information acts are making governmental reports increasingly available; they can also be expected to be used to make intercompany comparisons more frequent in the future.

Comparisons with norms and standards will be useful when they are available, for they will show the company's performance in relation to what was expected of it. A number of legal standards or norms have been established by governmental regulatory agencies; they can be used advan-

tageously. In some additional cases, where a specific norm does not exist, a method for establishing such a norm does (for example, using the assumption that the company's ratio of minority employees to its total employees should mirror the working population of the areas in which it operates). The number of areas covered by norms will be limited. In many instances, norms cannot be established without resolving significant political and ethical issues and incurring significant economic costs. Many companies will, therefore, be reluctant to establish or publicly state some of their standards, preferring to use credos, plans, budgets, or objectives as their norms. This seems to the authors to be a legitimate procedure that the system designer should take into account.

Principles of Financial Measurement

In spite of the fact that it is impractical to express all social measurements in financial terms, financial measurements will play a considerable role. They will frequently furnish information about the costs of actions taken by the company and serve as direct or surrogate measures of immediate results and impacts.

How to compute financial measurements—or more specifically, the kinds of accounting and economic principles that should underlie these computations—is discussed in some length in Appendix 3. Appendix 3 points out that when a company's unqualified audited financial statements have been prepared in accordance with generally accepted accounting principles (GAAP), there will be a presumption that all portions of the social information that form a part of those statements or are intended to be read in conjunction with them have been prepared on the same basis, unless the reader is advised to the contrary. It likewise points out that, since the purpose of information is to *inform,* social information need not be prepared on the basis of GAAP; however, in that event, there should be appropriate disclosure of the principles used. It also suggests that, as social information becomes further disassociated from audited statements (for example, is included in a separate report to the general public or a special-purpose, private report), the freedom to use alternative, but disclosed, methods of computation increases accordingly.

Finally, the appendix discusses the application of certain accounting and economic principles to the calculation of capital costs, revenues, and expenses for use in general and special-purpose reports.

Typical Business Decisions Having Important Social Implications

Corporate Purpose

- The "social utility" of the products and services to be offered.
- The customer classes to be served.
- Contributions to be made to technical, scientific, and managerial knowledge.
- Conformity of company actions with ethical standards of business and society.
- Balancing obligations to owners, customers, vendors, employees, competitors, community, and so forth.
- Attitude toward public service.

Economic Performance

- Level of profits sought.
- Role and sharing of increased productivity.
- Capital generation and effectiveness of resource utilization.
- Distribution or retention of profits.

Product Design

- Cost/value philosophy.
- Compatibility of product design with needs and economic resources of customer groups.
- Basis of product differentiation.
- Effect on use of nonrenewable resources, recycled materials.
- Waste and waste disposal consequences.
- Quality, reliability, durability, and serviceability characteristics.
- Product safety.
- "Unwarranted obsolescence."
- Aesthetics, appearance, and cultural values.

Manufacturing

- Plant closings and new site locations.
- Impacts on physical environment.
- Use of minority-operated suppliers.
- General treatment of suppliers.

Exhibit 3–1 (cont'd)

Manufacturing (cont'd)

- Those decisions included under "product design," "community," "organization and personnel."

Marketing

- Environmental impacts of packaging.
- Fair labeling and packaging.
- Customer education.
- Fairness of warranties.
- Adequacy of customer service.
- Direct and indirect effects of advertising and promotion.

Finance

- Impact of credit policies on access of classes of customers, vendors, and so forth, to the company and its products.

Organization and Personnel

- Hiring practices, especially as they relate to minorities, youth, women, the handicapped and disadvangaged, and the socially stigmatized.
- Training.
- Upward mobility.
- "Place to work" issues (the physical environment, the human or supervisory environment, job satisfaction, safety).
- Compensation practices, including benefits.
- Work facilitation (day-care centers, special aids for the handicapped, personal counseling).
- Job stability and security.

Community Impact

- Financial support.
- Leadership and manpower.
- Burden placed on physical, social, and political structures.
- Plant location and relocation policies.

Exhibit 3–2

Action—Impact Procedure or Function Analysis

Function: Engagement of New Employees

Step	*Possible "Social Alternatives"*
Establishment of Job Specifications	• Design of job to facilitate the use of minorities, the socially, educationally, or physically disadvantaged, and so forth • Nature of requirements for external education and experience vs. company pre- and on-the-job training • Nature and relevance of screening and testing standards • Job scope, decision-making, and quality control responsibilities and their relation to job satisfaction • Job design to facilitate promotability and personal growth and avoid dead-end jobs • Review of specifications of low-income jobs to see if they can be so constituted as to pay more or provide a learning experience from which promotions can be made
Publics Principally Affected	• Present employees/families; potential employees/families; the community

Part two

Part 2 deals with the development and installation of an initial system in terms of the measurement problems and possibilities in six areas:

Chapter

4—The environment

5—Nonrenewable resources

6—Human resources (employment)

7—Suppliers of purchased goods and services

8—Products, services, and customers

9—The community

These chapters use a substantially similar framework: some general comments about the subject area, followed by a discussion of the major constituencies or publics that are affected, and the major impacts and actions that affect these constituencies directly or through their effects on conditions having a major effect on quality of life. In most cases, the impact-action section will be the largest part of the chapter, since it attemps to describe actions and impacts, to indicate their importance and to suggest those matters which deserve attention in the process of measurement. The last section of each chapter deals with measurement methodologies appropriate for the area, usually expanding on one or another of the methodologies to further explain its characteristics and its application.

Each of these chapters concludes with a series of suggested social measures appropriate for the area. The measures are probably most suited for internal reporting, and thus an appropriate consolidation, abridgement or selection would be anticipated for most public disclosures.

Chapter 10 describes certain activities and experiences in the governmental field since the government has, in varied and significant ways, been concerned with the social aspects of society, the management of social programs and the social and economic regulation of business for many years.

four | The Environment

General Comments

The dramatic deterioration of air and water quality throughout the 1950s and 1960s produced widespread concern over society's fundamental relationship with the environment and broad acceptance of the idea that the efforts of business, government, and the general public were needed to stem further deterioration and, to the extent practicable, reverse what had already taken place.

Many of these efforts have focused on the products, facilities, and processes of industry and on the physical activities of the government. Automobiles, power plants, oil refineries, steel mills, dams, and highways quickly come to mind as examples.

Making progress in dealing with existing environmental problems and avoiding or reducing new ones have become major preoccupations of government and business and the greatest areas of activity for public interest groups. Determining the nature and extent of environmental impacts and devising appropriate means of measuring and reporting them have become important parts of that effort. As a consequence, the corporate social measurer finds that much has already been accomplished that he can use in the way of specifying measurements, measurement techniques, reporting procedures, and terminology. Given the importance of the environment and the public's interest in it, much has also been accomplished in the way of public disclosure.

Defining "environmental impacts"

Various definitions exist as to the nature of "environmental impacts." No doubt many would associate the term with the pollution—physical or chemical—of air, water, and land. This is quite at odds with the far broader definitions found in dictionaries and with definitions incorporated in various laws and regulations. These laws and regulations, although varying in emphasis depending upon the subject area to which they apply, include not only physical and chemical impacts on air, water, land, and so forth, but also impacts on ecosystems and the various flora and fauna

they support; on the aesthetic and sense-fulfilling aspects of natural and man-made objects; and on a variety of cultural, historical, and sociological characteristics of society.

This broad view of the dimensions of the environment can be seen in the Environmental Breakdown Structure (Exhibit 4-1), which researchers at Battelle Memorial Institute developed in connection with some of their work. This particular structure was created with water resource development projects primarily in mind. Its emphasis, therefore, is different from that of plans for a major housing project in a central city, although there would be many common elements.

For our purposes, the environment will be defined as consisting essentially of the items contained in the three columns on the left of Exhibit 4-1 —ecology, environmental pollution, and aesthetics. Impacts on human interest factors will be discussed in connection with the community in chapter 9.

Publics

Environmental conditions are part of a group of essentially physical conditions (which also include nonrenewable resources, renewable resources requiring substantial investments, and man-made, physical infrastructures) that may be expected to be of substantial importance in determining the quality of life of various publics in both this and future generations.

Some environmental impacts may be expected to be essentially uniform for all publics. More often than not, however, differences in impact will be sufficiently large so that some differentiation will have to be made on the basis of the constituencies affected. Appropriate recognition will have to be given to the fact that effects on environmental conditions may be different for employees, residents of the immediate neighborhood, residents of the larger community, inhabitants of the region, the state, the nation, and the world, in this and future generations.

Major Actions and Impacts

The most important of a company's environmental impacts arise out of the continuing physical operations of the company and the use (or consumption) of its products by its customers. A special set of problems arises out

of the construction or modification of the company's facilities rather than from their continuing operation.

There appears to be relatively little controversy about the general nature of the environmental impacts that result from business actions. There is more argument over their specific consequences. And, there is a substantial, and apparently growing, difference of opinion over the level of impact that should be considered acceptable after an appropriate trade-off has been made in which both the costs of the corporate action and the benefits of preventing, reducing, or correcting environmental damage have been taken into account.

Many environmental impacts are relatively confined—they affect a limited area and last for a relatively short period of time. Unless frequently repeated, they are usually not of great social concern.

The more important impacts tend to exhibit one or more of the following characteristics:

- They affect a large area and its occupants, although unevenly.
- They arise from more than one source, often from many sources.
- They build up gradually, often relatively unnoticed until they reach a critical level.
- They last for a considerable period of time.
- They are difficult to reverse.

Construction-related actions

A number of environmental impacts arise from construction-related activities. While the building of corporate facilities rarely rivals major governmental projects in size, scope, or impact, corporate construction projects can create significant difficulties, as is indicated by nationally publicized disputes over the construction of power plants, oil refineries and terminals, smelters, and the like and the less widely but no less intensely disputed matters involving local zoning and construction. Most of these disputes are related to whether construction is desirable in view of its later use rather than to the problems of construction itself.

Many construction projects involve substantial amounts of noise, dust, traffic, the use of heavy equipment, housing for transient labor, and other changes in neighborhood conditions. Some require temporary or permanent changes in the terrain. Some involve difficulties with chemicals and other materials that are used in construction or exposed to leaching from the

ground during the construction period. Some involve a conversion of land use from that which many prefer (and others, perhaps, dislike) and a more or less permanent preemption from other uses.

Most of these impacts can be affected in some manner and to some degree by actions taken by the company to prepare the neighborhood for construction and to mitigate the unfavorable consequences in the immediate and extended neighborhood during construction. Areas in which such action can be taken include the basic design of the project, the construction strategy, the type of equipment used, hours of work, worker housing and site cleanliness, and steps to speed or facilitate construction. A road-widening project extending beyond the immediate construction area might fit into such a category.

A special situation arises when a company's product is construction—either as developer, contractor, rental agent, or marketer of industrial, commercial, or residential properties. The role of the company may be different and the nature of the actions that it can take may be restricted by that role; nevertheless, the combined result is one whose impacts are not particularly different from those described above.

Operations-related actions

The most important environment-related actions of most companies arise out of the operations they carry out in manufacturing and, to a lesser extent, distributing their products. This is clearly true for many of the country's major industries—power, oil, chemical, coal, copper, steel, trucking, and so forth—and for most of the lesser industries as well. Pollution of air and water by the intentional or unintentional release of physical and chemical materials is often a major concern. So, too, are the effects caused by mining, agriculture, timber production, and other land uses on the quality of land and water, and on toxicity, noise, appearance, and odors.

Infrequently, a company's alternatives are limited to continuing to operate as in the past or discontinuing operations. Normally, however, alternatives are available for making desired or government-required improvements, at from modest to very significant costs. Additional, frequently less expensive alternatives are usually available when new plant design rather than retrofitting is involved.

The nature of the actions taken or planned, their cost and effectiveness, the extent of the problems remaining, the extent of compliance, and similar matters are of substantial importance to governmental regulatory

agencies. They also are important indicators of social performance to the corporate social measurer.

Product-related actions

The final set of environment-related actions arises out of the normal use of the company's products. The consequences of the use of autos, trucks, and airplanes on the quality of air come immediately to mind but there are numerous others, including the consequences of persistent poisons, detergents, agricultural chemicals, or, perhaps, even of aerosol-based sprays. They include the use of products creating uncomfortable noise levels, and products whose disposal as scrap or waste, or whose packaging, creates significant environmental difficulties.

Measurement

The measurement techniques appropriate for dealing with environmental impacts reflect the nature of the impacts being measured.[1] Those impacts that are physical and chemical in nature require one approach while, at the other extreme, those that deal with the aesthetic aspects of, say, plant construction require vastly different methods.

Measuring the chemical and physical aspects of pollution

The control exerted by government on pollution (air, water, noise, radiation, and so forth) relies heavily on specifications and standards expressed in physical and chemical terms. National ambient air quality standards, for example, are expressed in terms of maximum or average quantities of particulates: sulfur oxides, carbon monoxide, photochemical oxidants, hydrocarbons, and nitrogen dioxides. Water quality control relies on

[1] The principal measurement techniques appropriate for each subject area will be discussed briefly in each of chapters 4–9. In addition, one or two techniques will be discussed at greater length in each chapter. In the course of the six chapters, most of the techniques will receive expanded treatment.

similarly specified effluent characteristics; noise control utilizes decibel measurements; and radiation control relies on levels of radiation. Where applicable, control standards are also concerned with absolute quantities and concentrations of toxic materials.

A substantial and sophisticated technology, based upon appropriate instrumentation is being developed to deal with the requirements for measurement which these controls impose. Those upon whom controls are imposed—and presumably they are the principal sources—thus have or can have both the instrumentation and the information available for social measurement and for compliance.

When widely used products are involved (such as, motor vehicles and construction equipment), the results of laboratory tests or a limited sample of customers may have to suffice for such matters as air quality and noise. The same would seem to be true for pesticides and other products where one could hardly expect to measure the effects of product use in the hands of all customers.

Measurements requiring engineering, biological, and botanical skills

A variety of additional impacts can best be described or measured through procedures based on engineering, biological, botanical, and similar kinds of knowledge. These procedures are frequently used in connection with impacts made on land and land cover and related ecosystems. Less frequently, but often importantly, they relate to alterations of the water system or of the wetlands where land and water merge. The impacts arise from

1. The use of land and land cover as an integral part of a continuing *production* process such as occurs in farming, mining, lumbering, and similar activities.
2. The more or less one-time alteration of the landscape arising out of modifications made in it during the course of *constructing* a plant, warehouse, power facility, transmission line, dam, or jetty. (The impacts created, it should be noted, may be continuing, although the corporate action usually occurs within a limited time period.)
3. The *consumption of a product and the wastes* that are generated in the process of doing so.

Among the more important impacts are those resulting from alterations of the terrain, for they may impair or improve soil and soil structure,

affect the ability of the land to handle runoff waters of varying intensities, and directly or indirectly alter the environment of the fauna and flora. As such they correspond to the environmental effects set forth in "Attachment C" of Exhibit 4-2.

Frequently, the environmental effects can be established and described in terms and by procedures that are the stock-in-trade of civil and marine engineers. Many of the effects can be expressed in physical terms, such as tons, acres, and acre feet. At times, the effects can be determined and described by using drawings and constructing scale models. On other occasions, such as when water runoff and erosion are involved, on-site measurements may be required under a variety of actual conditions to determine what actually occurs.

When impacts affect the fauna and flora of an area or the ecosystem on which they depend, the types of measurements used will have to vary considerably—from those that deal directly with the quality of the environment to those that establish the effects made on the quantity, quality, diversity, and health of the natural life which lives in it. Clearly, changes over time will be of substantial importance. Equally clear is the fact that the greater the number of sources of impacts on an ecosystem and its flora and fauna, the more difficult will be the task of identifying the nature or extent of the positive or negative contribution of a particular company to any change that occurs.

Measurements requiring psychological or sociological skills

Many environmental changes create sociological or psychological impacts, particularly in geographical areas that are located close to the impact's source or cause. In other instances, however, as when certain forms of air and water pollution are involved, the area affected may extend a considerable distance from the source. Other impacts are more localized and arise out of either physical changes in the terrain or changes in the physical and social infrastructure of the community.

Among the major causes of psychological and sociological impacts are the following:

- The introduction of a major industrial facility that changes the basic character of a neighborhood or otherwise affects community cohesion.
- Substantial (often rapid) changes in the total population of a community or its density; rapid changes in loads on schools, hospitals, and other public institutions and on the social infrastructure generally.

- The displacement of people to provide space for the facility or for streets, highways, or other transportation; substantial expansions in the use of existing facilities.
- Important increases or decreases in recreational and cultural possibilities.

The impacts thus created may, of course, be good as well as bad and may have considerably different long- and short-run effects. Likewise, bad or potentially bad effects can be mitigated, prevented, or even turned into advantages by skillful action.

Many impacts can be determined without any particular technical skills. Others, however—particularly those requiring the determination and interpretation of citizen perceptions and actions—require a knowledge of individual and group psychology and of sociology. This knowledge obviously will be required to a greater extent when the reactions of individuals and groups are being measured than when the conditions affecting individuals and groups are the subject matter.

Measurements requiring aesthetic, historical, and cultural skills or knowledge

Measuring impacts of an aesthetic, historical, and cultural nature seems to be as much a matter of definition as of anything else. Once one can agree on what is aesthetically pleasing, historically and archeologically important and culturally desirable, making the measurements is, by comparison, a relatively straightforward process.

There are two approaches that can be used, alone or in combination, to establish definitions and apply them. The first uses the consensus of a broad range of interests. The second relies on the opinion of experts. A mixed approach, of course, would take both into account.

The National Register of Historic Places, the Advisory Council on Historic Preservation, and the state historic preservation officer rely, to a considerable extent, on what might be described as the "expert's approach." Similarly, the opinions of people of local or national reputation, can be used for evaluating other objects. For example, they can be used to obtain assessments of a company's aesthetic impacts and of its efforts to make them pleasant or desirable. Contrariwise, an approach can be selected that seeks to obtain the opinion of people who are in closest geographic proximity to the facility, are community leaders, or are representatives of the community-at-large.

Both the procedures used and the qualifications of those sitting in judgment are important. No doubt, efforts made to develop, maintain, or mitigate aesthetic, historical, and cultural impacts can be expressed, at least partially, in quantitative terms. So, too, can such matters as attendance at cultural activities. However, evaluations of quality and cultural value can be expected to be primarily verbal or to use pseudo-quantitative scales.

Certain aesthetic impacts are included in the list of suggested information appearing at the end of this chapter (Exhibit 4-6). Most of the aesthetic, historical, and cultural aspects are included in chapter 9, which deals with the community.

Developing Social Information About the Environment

The major concern of governmental agencies and public interest groups with environmental matters has led them to undertake developmental efforts that are of substantial assistance to the corporate social measurer. Five of them will be discussed briefly in the comments that follow.

"A clear view"

Without question, the corporate social measurer will find James Cannon's book, *A Clear View*,[2] of value. This book was written, with the assistance of a distinguished advisory board, to offer "the concerned citizen the tools needed to be an effective and competent participant in decisions about pollution control at an existing or proposed new factory." It is admirably suited for the purposes of the corporate social measurer, for in its approximately 250 pages, it provides a technical background description of important legislation and the regulatory process, an indication of probable types and sources of available material, and a discussion of methods for producing and evaluating significant information and presenting and using it for maximum effect. The book is valuable not only in connection with environmental matters but also as a practical demonstration of one way in which the various elements of the social measurement process can be put together, and as such, it may be helpful in dealing with other areas of social concern.

[2] James Cannon, *A Clear View* (New York: INFORM, Inc., 1975).

Studies of the Council on Economic Priorities

The Council on Economic Priorities is a public interest organization that has undertaken a number of studies, virtually all of which have been oriented toward the relative and absolute performance of companies in a single industry. Its biggest single area of interest has been environmental pollution. Studies have been made of the electric utility, oil refining, paper, and steel industries. To some extent, the council's study of the strip mining of coal also treated environmental concerns.

These studies contain a vast amount of technical detail about the state of the art of pollution control in specific industries, operating characteristics, and pollution control practices and performance of individual plants and companies, compliance plans, law suits, and other information. They also set forth in summary fashion both the criteria used and the council's evaluations of the performance of individual plants and companies. A brief excerpt from the council's report on the steel industry is shown in Exhibit 4-3.

The council's reports have several values to the corporate social measurer. Obviously, they are directly useful in the selected industry because (1) they reveal information about the measured company and other companies in the same industry and (2) they indicate how the council's specific evaluations have been made.

The council's reports also provide a description and an example of a proven procedure that corporate social measurers may wish to apply to their companies' plants or facilities even though they may be in another industry.

Environmental impact statements

The third group of important sources of information comprises (1) the forms and regulations covering environmental impact statements and (2) actual statements that have been prepared and filed by the measurer's own company or by other companies in the same or similar industries or situations.

The environmental impact statement is one of the major tools by which the federal government is attempting to carry out the responsibilities assigned by the National Environmental Policy Act (NEPA). That law stipulates that all agencies of the federal government are to include an environmental impact statement in every recommendation or report on proposals for legislation and other major federal actions that can be expected to have major effects on the quality of the environment. The re-

quirement to prepare environmental impact statements applies not only to federal agencies and their direct activities but also to federal agency grantees and contractors that are financially supported, in whole or in part, by a federal agency. Federally supported activities that typically would require impact statements thus would include highway or bridge construction, urban renewal, the construction of waste disposal facilities, river and harbor projects, airport development, and power plant construction projects.

Private industry does not come under this requirement unless an industry action requires a federal license or permit, such as a Corps of Engineers' dredging permit, a transmission line right-of-way across federal land, or a Federal Power Commission license. However, the number of private projects covered under this provision is surprisingly large.

By 1975, more than one-third of the states (including many of the larger, more populous ones) had also adopted comprehensive environmental impact statement requirements or required environmental impact statements for certain classes of projects, such as toll roads and utility power plants. Most of these state requirements applied to state projects or private projects requiring state permits. However, two states, California and Massachusetts, also specifically required impact statements for private projects and others seemed to be in the process of doing so. There is considerable evidence that the number of states and local government agencies adopting full or partial environmental statement procedures will increase considerably.

Environmental impact statements must contain descriptions of the primary and secondary environmental impacts—short- and long-term—of the proposed activity, including specific impacts on the area and the resources involved, physical changes or alterations to ecological systems, changes induced in population distribution or concentration, changes in the human use of land (including commercial and residential development), and impacts on other aspects of the resource base such as water and public services. Remedial and protective measures that will be taken must be identified. Adverse impacts that cannot be avoided or mitigated must be identified and described in detail.

Alternatives to the proposed action must be set forth in the statement and described in such a way that the cost/effectiveness of the alternatives can be analyzed. The cumulative and long-term effects of the proposed action must be identified, and it must be established that short-term actions will not foreclose future options or needs or significantly degrade the environment for future generations.

Finally, any irreversible and irretrievable commitments of resources that would be involved if the proposed action were implemented must be described. (Most construction projects, such as the construction of a nuclear power generation plant, are, in effect, irreversible because the large commitment of resources makes removal or nonuse thereafter unlikely.) These and similar impacts that commit future generations to a particular use of resources must be evaluated to ensure that they are justified.

In essence, an environmental impact statement is intended to be a carefully prepared, comprehensive attempt to predict and disclose the anticipated consequences of a proposed action and alternatives to it. It is, thus, a special form of social performance report which, since the action has not occurred, uses estimates of the future rather than measurements of the past.

A number of aspects of environmental impact statements are of interest to the corporate social measurer. First, of course, the measurers may find it necessary to assist in the preparation of such a statement on behalf of their own companies. Or the need may arise, in corporate situations or at government levels where the statement itself is not required, to prepare reports that use the philosophy and approach of the environmental impact statement without its format and specific requirements. Second, by reference to the regulations of specific agencies (see, for example, Exhibit 4-4, covering housing projects at the application or pre-statement level, and Exhibit 4-2, on civil works projects proposed to be undertaken by the Corps of Engineers), the measurer can identify the types of impacts deemed to be important in different types of projects.

Finally, the corporate social measurer can note that the statements do not insist on quantification throughout. They, instead, use a mixture of quantification and narrative. They do not attempt, except in isolated instances, to assign weights to factors or to arrive at a net index of merit except through the exercise of human judgment. As such, they serve to illustrate for the corporate social measurer something of the philosophy of the "initial system" suggested in this book.

Governmental regulatory processes

Finally, the corporate social measurer will find considerable assistance in the same processes of governmental regulation that are the cause of operational constraints for the company. To see why this is so requires a brief

and necessarily oversimplified description of government regulation in the environmental field.

Regulation is carried out by some combination of the following:

1. The government identifies elements of the environment that it considers to be important—air, water, noise, and so forth—and selects key characteristics of those elements that it wishes to control because of their intrinsic importance or because they serve as good indicators of the overall quality of that element.
2. The responsible governmental agency at the federal, state, or local level determines what are acceptable levels of environmental quality for the nation as a whole or for smaller subdivisions, such as states or regions.
3. Standards are established to cover many of the environmental quality levels. These may not only set forth the general levels of quality for a geographical area but also specific quality requirements for specific products or classes of products (for example, automobiles) or for specific industries or activities (power generation, incineration, asphalt manufacture, mining, refining, and so forth) that are deemed to be particularly important sources of environmental problems. (Obviously, not all plants and products are covered in this manner.)
4. A procedure is set up whereby companies can obtain partial or full relief from the general standards in light, particularly, of the size of the source, the cost/benefit trade-off involved in retrofitting older plants, or the unsuitability of the available technical solutions. At times, full relief may be granted for the life of the plant; more often it will be partial and/or temporary, with a stretched-out period of compliance.
5. When standards cannot reasonably be established, due to substantial dissimilarities in conditions, regional plans and programs may be established which, after official approval, serve as goals, standards, or targets for the area and an identification of the important sources of environmental problems.
6. Licenses and permits may be used (a) to cover situations that are too nonuniform to permit predetermined standards or (b) to enforce existing laws and standards.
7. Requirements are established for demonstrating and reporting compliance and noncompliance and for enforcement actions and penalties in the latter event.

Generalizing about the importance of these techniques in the major areas of interest to the Environmental Protection Agency, one might make the conclusions tabulated below.

	Air quality	*Water quality*	*Pesticides, etc.*	*Noise*	*Ocean dumping*
1. Specific national standards and exceptions are very important					
For an area as a whole, a water system, etc.	X	X			
For selected products	X		X	X	
For selected types of facilities and/or processes	X	X			
For facilities or processes in general	X				
2. Control strategies, plans and programs setting variable levels and dates for compliance are very important	X	X			
3. Permits and licenses related to individual situations are of great importance		X			X
4. Incentives and penalties are significant	X	X	X	X	X

What does all this mean to the social measurer? It means, in a large and important number of instances, (1) that a third party—the government—has identified a number of corporate facilities, processes, products, and actions as environmentally important, (2) that it has set up numerous national, local, or industry standards or requirements and machinery for deciding when and how they should be modified, (3) that it usually has established requirements for monitoring and accumulating information demonstrating compliance or failure to comply, and (4) that it has set up inspection and enforcement machinery and penalties.

How can this be of help to the corporate social measurer? It can assist by—

1. Identifying environmental attributes that are important.
2. Identifying specific products, plants, and processes that are of particu-

lar concern and establishing, in the form of standards, levels of achievement that can be used by the social measurer as socially acceptable norms.

3. Establishing procedures (a) for modifying these standards or (b) for using targets and goals or licenses and permits to extend the area in which social norms have been established outside of the company.
4. Requiring the measurement of performance through increasingly sophisticated and informative techniques.
5. Providing enforcement procedures indicating when, in the opinion of a third party, significant violations exist.

There are a number of problems with using standards and regulations, as chapter 10 indicates. These are most acute (1) when there are conflicting standards issued by different agencies or different levels of government, (2) when standards exist that require technology that is nonexistent or unproven or economically questionable, (3) when the company is engaged in seeking relief through administrative or judicial processes, or (4) when a lack of enforcement indicates an ambivalent attitude on the part of the agency. Nevertheless, standards can be and normally are very useful.

Governmentally prescribed financial reports

Two governmental commissions that have issued regulations with respect to financial information on environmental matters deserve comment.

The position of the first, the Securities and Exchange Commission, was under reconsideration at the time this was being written. As is discussed at length in chapter 12, its present position of requiring disclosure only on the basis of important economic consequences is under legal attack for failure to comply with the provisions of the National Environmental Policy Act.

The second, the Federal Power Commission, has recently issued regulations, effective starting with the year 1975, with respect to electric utilities reporting to the commission. Exhibit 4-5 sets forth the two schedules involved. They deal with the capital cost of environmental protection facilities and annual environmental protection operating expenses. Both the items to be included and the bases to be used in determining costs and expenses are of interest.

A final comment

The social measurer will not long be under the illusion that others have done all his work for him; nevertheless, he will be apt to conclude that greater assistance exists in the environmental area than in others falling within the company's social performance "profile."

Suggested Information

Items that the company may find useful in providing information about its social performance are shown in Exhibit 4-6. The items suggested are those believed to be appropriate for a comprehensive internal report. A general report on environmental matters intended for a general audience would normally reduce the number of items covered and the degree of detail provided. On the other hand, the list of items might be found to be less comprehensive, detailed, and specific than would usually be found necessary in dealing with regulatory bodies, governmental agencies, and community groups with respect to specific plants or products, particularly those with troublesome problems. The list, likewise, might have to be expanded or contracted or accorded a different emphasis when particular corporate policies and specific or capital expenditure or operational decisions are under consideration. This would almost certainly also be the case when data were being prepared for dealing with regulatory agencies with respect to the development or modification of standards.

Exhibit 4-6 and similar schedules appearing at the end of chapters 5 through 9 have been prepared to suggest information that (1) deals directly with matters of significant social concern and/or (2) can usefully serve as indicators of corporate social performance.

No doubt some items suggested will seem inappropriate, either because they are not important under the circumstances existing at a particular company or because management does not believe these are matters with which a company should be concerned. They do, after all, reflect some philosophy of corporate social responsibility even though they do not deal with the level of responsibility that should be sought or achieved.

We find this unavoidable, even though we set out to deal solely with matters of measurement. The items listed do represent matters that our research indicates are of frequent concern. They are intended only to be taken as starting points by individual companies.

Environmental Breakdown Structure

Ecology

Species and Populations

Terrestrial
Browsers and grazers; Crops; Natural vegetation; Pest species; Upland game birds

Aquatic
Commercial fisheries; Natural vegetation; Pest species; Sport fish; Waterfowl

Habitats and Communities

Terrestrial
Food web index; Land use; Rare and endangered species; Species diversity

Aquatic
Food web index; Rare and endangered species; River characteristics; Species diversity

Ecosystems

Descriptive only

Environmental Pollution

Water Pollution

Basin hydrologic loss; BOD; Dissolved oxygen; Fecal coliforms; Inorganic carbon; Inorganic nitrogen; Inorganic phosphate; Pesticides; pH; Stream flow variation; Temperature; Total dissolved solids; Toxic substances; Turbidity

Air Pollution

Carbon monoxide; Hydrocarbons; Nitrogen oxides; Particulate matter; Photochemical oxidants; Sulfur oxides; Other

Land Pollution

Land use; Soil erosion

Noise Pollution

Noise

Aesthetics

Land

Geological surface material; Relief and topographic character; Width and alignment

Air

Odor and visual; Sounds

Water

Appearance of water; Land and water interface; Odor and floating materials; Water surface area; Wooded and geologic shoreline

Biota

Animals—domestic; Animals—wild; Diversity of vegetation types; Variety within vegetation types

Man-Made Objects

Man-made objects

Composition

Composite effect; Unique composition

Human Interest

Educational/ Scientific Packages

Archeological; Ecological; Geological; Hydrological

Historical Packages

Architecture and styles; Events; Persons; Religions and cultures; "Western Frontier"

Cultures

Indians; Other ethnic groups; Religious groups

Mood/Atmosphere

Awe/inspiration; Isolation/solitude; Mystery; "Oneness" with nature

Life Patterns

Employment opportunities; Housing; Social interactions

Exhibit 4–2

Corps of Engineers: Causative Factors and Social, Economic, and Environmental Effects to Be Considered in Relation to Civil Works Projects

ATTACHMENT A

Section 122—Public Law 91–611

"Not later than July 1, 1972, the Secretary of the Army, acting through the Chief of Engineers, after consultation with appropriate Federal and State officials, shall submit to Congress, and not later than 90 days after submission, promulgate guidelines designed to assure that possible adverse economic, social, and environmental effects relating to any proposed project have been fully considered in developing such project, and that the final decisions on the project are made in the best overall public interest, taking into consideration the need for flood control, navigation, and associated purposes, and the cost of eliminating or minimizing such adverse effects as the following:

"1. Air, noise, and water pollution;

"2. Destruction or disruption of man-made and natural resources, esthetic values, community cohesion and the availability of public facilities and services;

"3. Adverse employment effects and tax and property value losses;

"4. Injurious displacement of people, businesses, and farms; and,

"5. Disruption of desirable community and regional growth.

"Such guidelines shall apply to all projects authorized in this Act, and proposed projects after the issuance of such guidelines."

ATTACHMENT B

Sample Causative Factors

In order to identify and evaluate the effects of a project, describe aspects of the project in terms of factors likely to produce significant effects. Evaluation of effects should not be carried out in greater detail than the project alternative being considered. The list below is illustrative. It is not to be considered complete or limiting.

Input Factors

Land.
Resources products.
  Gravel.
  Sand.
  Coal.

Input Factors (cont'd)

Natural resources
- Water.
- Timber.
- Crushed rock.
- Wildlife and fish.
- Esthetics.
- Flora (plant life).

Energy resources

Capital

Labor

Systemic Factors

Physical alterations
- Channelization.
- Excavation.
- Dredging.
- Draining.

Structures
- Dam/lake.
- Levee.
- Jetty.
- Channel.
- Barrier.
- Road and utility relocation.

Institutional
- Acquisition.
- Easements.
- Relocation.

Operation and Maintenance Factors

Equipment service

Resource management
- Harvesting.
- Planting.
- Buffer zone maintenance.
- Grazing.
- Fencing.

Maintenance
- Recreational areas.
- Water quality protection.

Exhibit 4–2 (cont'd)

ATTACHMENT B

Sample Causative Factors

Operation and Maintenance Factors

Maintenance (cont'd)

Dredging operations.
Navigation controls.
Reservoir controls and procedures.

Output Factors

Hydro-power
Flood control
Navigation
Water supply
Recreation
Irrigation
Fish and wildlife
Water quality
Shoreline protection

ATTACHMENT C

Sample Project Effects

All significant effects of project should be identified and assessed. In some cases, a causative factor may result in only one significant effect. In other cases, the significant effects of a causative factor will be numerous and may require consideration in all three effect categories. (Example: A causative factor such as dredging may result in turbidity in the water for a brief period. This should be considered a predominantly environmental effect. Yet, because of the turbid water, a textile factory downstream may have to close down for a few days. This is an economic effect, and should be considered as a result of dredging even though it is a lesser effect than the environmental one. The increased turbidity may also have the effect of reducing water recreation temporarily. This is a social effect of dredging.) Judgment must be used as to the limits of tracing out effects. Generally, the degree of detail involved in assessment should be no greater than that of the plan it addresses.

An asterisk denotes items specifically mentioned in section 122. These must be identified and evaluated. If they are considered to be not significant, that

should also be noted. Other effects should be identified and evaluated only if they are considered to be significant. The list below is an illustrative one. It is not to be considered complete or limiting.

Social Effects

* Noise.
  Population, e.g.
    Mobility.
    Density.
    * Displacement of people.
* Esthetic values.
  Housing.
  Archeologic remains.
  Historic structures.
  Transportation.
  Education opportunities.
  Leisure opportunities (recreation, active and passive).
  Cultural opportunities.
* Community cohesion.
* (Desirable) community growth.
  Institutional relationships.
  Health.

Economic Effects

  National economic development.
  Local government finance, e.g.
    * Tax revenues.
    * Property values.
  Land use.
* Public facilities.
* Public services.
  Local/regional activity, e.g.
    * (Desirable) regional growth.
      Relocation.
  Real income distribution.
* Employment/labor force.
* Business and industrial activity.
  Agricultural activity.
    * Displacement of farms.
      Food supply.
  National defense.

Exhibit 4–2 (cont'd)

ATTACHMENT C

Sample Project Effects (cont'd)

Environmental Effects

* Man-made resources.
* Natural resources.
  Pollution aspects.
    * Air.
        Carbon monoxide.
        Sulphur oxides.
        Hydrocarbons.
        Particulates.
        Photochemicals.
    * Water.
        Pathogenic agents.
        Nutrients N and P.
        Pesticides, herbicides, rodenticides.
        Organic materials.
        Solids, dissolved, and suspended.
    Land.
        Soils.
    Animal and plant.
        Birds.
        Mammals.
        Amphibians.
        Fish, sport and commercial.
        Shellfish.
        Insects.
        Microfauna.
        Trees, shrubs, and plants.
        Microflora.
    Ecosystems.
        Habitats.
        Food chains.
        Productivity.
        Diversity.
        Stability.
    Physical and hydrologic aspects.
        Erosion.
        Erosion and sedimentation effects.

Environmental Effects (cont'd)

Compaction and subsidence.
Slope stability.
Groundwater regime alteration.
Surface flow effects.
Micrometeorological effects.
Physiologic changes (e.g., wetlands destruction).

(Public Law 91–190, 88 Stat. 852, Sec. 122; Public Law 91–611, 84 Stat. 1823, Sec. 3012; 70A Stat. 157, 10 U.S.C. 3912) [38 FR 1637, Jan. 17, 1973]

SOURCE: Title 33, "Navigation and Navigable Waters," Chapter 2, Corps of Engineers, Sec. 209. 400, 1975.

Exhibit 4–3

Summary of Council on Economic Priorities (CEP) Criteria for Mill Evaluations

The Council on Economic Priorities rated the adequacy of each mill's controls for each of 22 air and water pollutants. A mill is rated inadequately controlled ("X") for a given pollutant if its discharge level exceeds CEP criteria, and adequately controlled ("✓") if it does not. If there was insufficient information available to evaluate a pollutant at a mill, its discharge for that pollutant is rated questionable ("?").

Pollutants	Criteria for Adequate Control	Criteria Applied to
Air		
Particulates Sulfur Dioxide	"Allowable" emissions under Clean Air Act of 1970 or local legal air pollution standard.	Emissions in lbs./hr.
Water		
pH	Within 6.0 to 8.5 pH units.	Discharge concentration at each outfall pipe.
Suspended Solids	30.00 ppm [a]	Increase in concentration over intake at each outfall pipe.
BOD	3.00 ppm	
Oil/grease	10.00 ppm	
Ammonia	.80 ppm	
Cyanide	.12 ppm	
Phenol	.08 ppm	
Iron	5,000.00 ppb [b]	
Fluoride	1 ppm	Discharge concentration, averaged for entire mill.
Arsenic	50 ppb	
Cadmium	10 ppb	
Chromium	50 ppb	
Lead	50 ppb	
Zinc	100 ppb	
Dissolved Solids	50 ppm	Increase in concentration over intake, averaged for entire mill.
Sulfate	10 ppm	
Chloride	10 ppm	
COD	20 ppm	
Temperature	5°F for rivers, streams. 3°F for lakes. 4°F in winter/1.5°F in summer for estuaries and oceans.	Increase in temperature over intake, averaged for entire mill.

[a] ppm = parts per million
[b] ppb = parts per billion

Evaluation of the XYZ Plant

Air Pollutant	Actual Emissions (*lbs./hr.*)	Allowable Emissions (*lbs./hr.*)	Percent of Air Basin Pollution	CEP Evaluation
Particulates	4,950	100	45	X [c]
Sulfur dioxide	5,338	4,412	45	X

Water Pollutant	Average Concentration Intake/Discharge	Net Discharge (*lbs./day*)	CEP Evaluation
Temperature—Winter	38°F/52°F	—	X
Temperature—Summer	77°F/89°F	—	X
pH	6.8/6.9	—	X
Dissolved Solids	259 ppm/346 ppm [a]	186,247	X
Suspended Solids	13 ppm/31 ppm	39,745	X
BOD	16.9 ppm/22.6 ppm	12,004	X
COD	36 ppm/15 ppm	–43,581	✓ [d]
Oil/grease	5.7 ppm/7.2 ppm	3,474	X
Ammonia	.5 ppm/1.3 ppm	1,442	X
Cyanide	.005 ppm/.022 ppm	42	✓
Phenol	.001 ppm/.035 ppm	66	X
Sulfate	123 ppm/154 ppm	72,853	X
Chloride	18 ppm/27 ppm	19,684	✓
Fluoride	.101 ppm/.80 ppm	1,598	✓

Water Pollutant	Average Concentration Intake/Discharge	Net Discharge (*lbs./day*)	CEP Evaluation
Iron	800 ppb/4685 ppb [b]	8,222	X
Arsenic	same	0	?
Cadmium	0 ppb/9 ppb	19	✓
Chromium	0 ppb/150 ppb	317	X
Lead	5 ppb/466 ppb	994	X
Zinc	239 ppb/540 ppb	638	X

[a] ppm = parts per million
[b] ppb = parts per billion
[c] X = inadequately controlled
[d] ✓ = adequately controlled
SOURCE: The Council on Economic Priorities, *Environmental Steel* (New York: Council on Economic Priorities, 1973).

Exhibit 4–4

Housing and Urban Development: Factors to Be Considered in Environmental Analyses of Subdivision and Multifamily Projects

NORMAL AND SPECIAL ENVIRONMENTAL CLEARANCE FOR SUBDIVISION AND MULTIFAMILY PROJECTS

Department of Housing and Urban Development

A. *Project Identification*

Applicant's Name _____ Street Address _____
City or County _____ State _____ Zip _____
Phone _____ Project Name _____ FHA File #_____
Project/Subdivision Location _____
Number of lots or units proposed ___. Size of tract (acres/sq. ft.) _____.
Demand for housing in this area: adequate—reject—If reject, go to Section I.
For Subdivision Only
Has work started? Yes___ No___. If work has started: Grading is ___% completed
Street improvements are ___% completed. Number of homes under construction ___
Number of homes completed ___

ENVIRONMENTAL ANALYSIS

Evaluate project and assign a rating: A, B, C or Na. (See instructions.)

B. *Compliance With Standards*

1. Have A-95 review requirements been met? Yes___ No___ In process___
2. Is the project in compliance with the local and regional comprehensive plans? Yes___ No___
3. Is the project in compliance with local zoning ordinances? Yes___ No___
4. Compliance with applicable standards:

	Rating	*Source/Documentation*
a. Historic properties	_____	_____
b. Noise	_____	_____
c. Flood plain	_____	_____
d. Coastal zone	_____	_____
e. Wetlands	_____	_____
f. Air quality	_____	_____
g. Other (Specify)	_____	_____

Is the project in violation of applicable standards? Yes___ No___.
Should the project be rejected? Yes___ No___.
If reject, go to Section I. If not, continue the environmental assessment (Section C).

C. *Site Suitability Analysis*

	Rating	*Source/Documentation*
1. Slope stability		
2. Foundation conditions		
3. Terrain		
4. Soil permeability		
5. Ground water		
6. Natural hazards		
7. Man-made hazards		
8. Nuisances		
9. Compatibility in use and scale with environment		

Services and Facilities	*Rating (Access)*	*Rating (Adequacy)*	*Source/ Documentation*
11. Elementary school			
12. Junior and senior high school			
13. Employment			
14. Shopping			
15. Park, playground and open space			
16. Police and fire			
17. Health care/social services			
18. Transportation			
19. Other services:			

Utilities	*Rating*	*Source/Documentation*
20. Water supply system		
21. Sanitary sewer system		
22. Storm sewer system		
23. Solid waste disposal		
24. Other utilities		
25. Paved access to site		

D. Does project size exceed special clearance size thresholds? Yes_____ No_____. If yes, continue review (Section E). If not, go to Section F. (See Chapter 8, Handbook 4010.1)

E. *Impacts on the Environment* (special clearance)

	Rating	*Source/Documentation*
1. Impact on unique geological features or resources		
2. Impact on rock and soil stability		

Exhibit 4–4 (cont'd)

Environmental Analysis

E. *Impacts on the Environment* (special clearance) *(cont'd)*

	Rating	*Source/Documentation*
3. Impact on soil erodibility	_____	_____
4. Impact on ground water (level, flow and quality) ..	_____	_____
5. Impact on open streams and lakes	_____	_____
6. Impact on plant and animal life	_____	_____
7. Impact on energy resources	_____	_____
8. Impact on social fabric and community structures	_____	_____
9. Displacement of persons or families	_____	_____
10. Impact on aesthetics and urban design	_____	_____
11. Impact on existing or programmed community facilities	_____	_____
a. Schools	_____	_____
b. Parks, playgrounds and open spaces	_____	_____
c. Health care and social services	_____	_____
d. Community services	_____	_____
e. Transportation	_____	_____
f. Water supply system	_____	_____
g. Sanitary sewer system	_____	_____
h. Storm sewer system	_____	_____
i. Solid waste disposal system	_____	_____

F. Will the project have notable impacts on the environment? Yes___ No___. If yes, is further analysis necessary? Yes___ No___. Are there alternative site designs that can be considered? Yes___ No___.
Comment:

G. Assess the following conditions: (a) Does the project form part of a larger development pattern? Yes___ No___. (b) Is the project likely to stimulate additional development? Yes___ No___. (c) Are there other developments planned which are, or will be impacted by the project? Yes___ No___.

If any of the above area is answered "Yes" indicate how the cumulative environmental impact of the larger development will be addressed. EIS _____ Special Environmental Clearance _____ 701 planning funds _____other _____. Should this project be delayed until the cumulative impacts are accounted for? Yes___ No___.
Comment:

H. *Location and Market*

1. Marketability is: Acceptable_____ Reject_____.
   If reject, go to Section I.
2. Most marketable price or rental range is $_____ to $_____.
3. Most marketable units 0–2 B R _____.
   3 B R _____.
   4 or more _____.
4. For Subdivisions:
   Estimated market price of typical lot $_____ to $_____.
   Typical lot size _____.

Local Authorities

1. Local authorities have___ have not___ approved tentative map.
2. Local officials contacted:
   Name: _____Title: _____Phone: _____
   Name: _____Title: _____Phone: _____
3. Information and Date Obtained: _____

I. *Environmental Findings* (Check applicable items)

_____ Reject
_____ EIS Required
_____ No EIS required. Project is consistent with HUD environmental policies and requirements and is not a major Federal action significantly affecting the quality of the human environment.
_____ Further environmental review is required. Backup material is appended. Yes___ No___

For Subdivisions Only

_____ Issue Interim Form ASP-5.
Special problems involve:
Sanitary engineering_____
Site engineering_____
Site planning_____
Architecture_____
_____ Issue ASP-6.
VA has been contacted. Yes___ No___

Exhibit 4–4 (cont'd)

Comment

Field Inspection and Assessment made by: _____

Name	Title	Date
Name	Title	Date
Name	Title	Date

J. *Review and Comment of Environmental Officer*

_____
Environmental Clearance Officer Date

K. *Instructions by Chief Underwriter*

_____
Date

Effective date. This amendment is effective on November 4, 1974.

James T. Lynn,
Secretary of Housing
and Urban Development

[FR Doc. 74–25487 Filed 11–1–74; 8:45 am]

SOURCE: Federal Register, Vol. 39, No. 213, "Notices" (Monday, November 4, 1974), pp. 38924–5.

Exhibit 4–5

Federal Power Commission: Information Requirements With Respect to Environmental Protection Capital Costs and Operating Expenses (Specimen Form Effective 1975)

Annual Report of ..... Year ended December 31, 19....

Environmental Protection Facilities

1. For purposes of this schedule, environmental protection facilities shall be defined as any building, structure, equipment, facility or improvement designed and constructed solely for control, reduction, prevention or abatement of discharges or releases into the environment of gaseous, liquid or solid substances, heat, noise or for the control, reduction, prevention or abatement of any other adverse impact of an activity on the environment.

2. There shall be reported herein the difference in cost of facilities installed for environmental considerations over the cost of alternative facilities which would otherwise be used without environmental considerations. The basis for determining costs without environmental considerations will be the best engineering design achievable without environmental restrictions. It is not intended that special design studies be made for purposes of this response. The best engineering judgment shall suffice where direct comparisons are not available.

These differences in costs would include the costs or estimated costs of environmental protection facilities in service, constructed or modified in connection with the production, transmission and distribution of electrical energy and shall be reported herein for all such environmental facilities placed in service on or after January 1, 1969, so long as it is readily determinable that such facilities were constructed or modified for environmental rather than operational purposes. Similar expenditures for environmental plant included in construction work in progress shall also be reported herein. The cost of facilities may be estimated when the original cost is not available or facilities are jointly owned with another utility, provided the respondent explains the basis of such estimations.

Examples of these costs would include a portion of the costs of tall smokestacks, underground lines and landscaped substations. Use the space below to explain such costs.

3. The cost of facilities included herein shall include an estimated portion of the cost of plant that is or will be used to provide power to operate associated environmental protection facilities. These costs may be estimated on a percentage of plant basis. Use the space provided to explain such estimations.

Exhibit 4–5 (cont'd)

4. All costs shall be reported under the major classifications provided below and include, but are not limited to, the items listed hereunder:

A. Air pollution control facilities:
   1. Scrubbers, precipitators, tall smokestacks, etc.
   2. Changes necessary to accommodate use of environmentally clean fuels such as low ash or low sulfur fuels including storage and handling equipment.
   3. Monitoring equipment
   4. Other

B. Water pollution control facilities:
   1. Cooling towers, ponds, piping, pumps, etc.
   2. Waste water treatment equipment
   3. Sanitary waste disposal equipment
   4. Oil interceptors
   5. Sediment control facilities
   6. Monitoring equipment
   7. Other

C. Solid waste disposal costs:
   1. Ash handling and disposal equipment
   2. Land
   3. Settling ponds
   4. Other

D. Noise abatement equipment:
   1. Structures
   2. Mufflers
   3. Soundproofing equipment
   4. Monitoring equipment
   5. Other

E. Esthetic costs:
   1. Architectural costs
   2. Towers
   3. Undergrounding lines
   4. Landscaping
   5. Other

F. Additional plant capacity necessary due to restricted output from existing facilities, or addition of pollution control facilities

G. Miscellaneous:
   1. Preparation of environmental reports
   2. Fish and wildlife plants included in Accounts 330, 331, 332 and 335
   3. Parks and related facilities
   4. Other

5. In those instances when costs are composed of both actual supportable costs and estimates of costs, specify in column (g) the actual costs that are included in column (f).

6. Construction work in progress relating to environmental facilities shall be reported at line 9.

Exhibit 4–5 (cont'd)

LINE NO	CLASSIFICATION OF COST (a)	BALANCE BEGINNING OF YEAR (b)	CHANGES DURING YEAR *Additions* (c)	*Retirements* (d)	*Adjustments* (e)	BALANCE END OF YEAR (f)	ACTUAL COST (g)
01	Air Pollution Control Facilities						
02	Water Pollution Control Facilities						
03	Solid Waste Disposal Costs						
04	Noise Abatement Equipment						
05	Esthetic Costs						
06	Additional Plant Capacity						
07	Miscellaneous (Identify Significant)						
08	Total						
09	Construction Work in Progress						

NOTES:

Exhibit 4–5 (cont'd)

Annual Report of ..... Year ended December 31, 19....

Environmental Protection Expenses

1. Show below expenses incurred in connection with the use of environmental protection facilities, the cost of which is reported on page 501. Where it is necessary that allocations and/or estimates of costs be made, state the basis or method used.

2. The expenses shown below shall include the costs incurred due to the operation of environmental protection equipment, facilities, and programs.

3. Expenses shall be reported under the subheadings listed below.

4. Under item 6 include the difference in costs of environmentally clean fuels as opposed to the alternative fuels that would otherwise be used and are available for use.

5. Item 7 shall include the cost of replacement power, purchased or generated, to compensate for the deficiency in output from existing plants due to the addition of pollution control equipment, use of alternate environmentally preferable fuels or environmental regulations of governmental bodies. Replacement power purchased shall be priced at the average system price of purchased power if the actual cost of such replacement power is not known. Internally generated replacement power shall be priced at the system average cost of power generated if the actual cost of specific replacement generation is not known.

6. Under item 8 include ad valorem and other taxes assessed directly on or directly relatable to environmental facilities. This item shall also include licensing and similar fees on such facilities.

7. In those instances where expenses are composed of both actual supportable data and estimates of costs, specify in column (c) the actual expenses that are included in column (b).

LINE	CLASSIFICATION OF EXPENSE (a)	AMOUNT (b)	ACTUAL EXPENSES (c)
01	Depreciation		
02	Labor, Maintenance, Materials and supplies cost related to environmental facs. & prog.		
03	Fuel related costs:		
04	Operation of facilities		
05	Fly ash and sulfur sludge removal		
06	Difference in cost of environmentally clean fuels		
07	Replacement power costs		
08	Taxes and fees		
09	Administrative and general		
10	Other (Identify significant)		
11	Total		

NOTES:

The Environment—Suggested Information and Sources

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
1. Air quality:		
a. Physical and chemical composition.	1. a. Emissions of the five items included in ambient air quality standard; significant emissions of toxic materials. Frequency and extent of violation of permitted levels.	1. a. Measurements obtained by the use of measurement instruments, frequently carried out under procedures specified by governmental regulatory bodies; special technical studies.
b. Appearance (effect of color of smoke).	b. Frequency, intensity, and duration of unpleasant periods.	b. Citizen perceptions; measurements using photographic and other methods of scaling.
c. Odor.	c. Frequency, intensity, and duration of unpleasant periods.	c. Citizen surveys; intermittent observations and measurements.
2. Water quality:		
a. Physical and chemical composition.	2. a. Discharges of metals, chemicals, pesticides, heat, radionuclides, oxygen dissolving and decomposing materials, microbiological contaminants and other effluents, particularly toxic effluents, affecting water quality.	2. a. Measurements obtained by the use of measurement instruments, frequently carried out under procedures specified by governmental regulatory bodies; special comparisons with practical and available technologies.
b. Appearance.	b. Discharges affecting appearance, smell, and similar qualities.	b. Intermittent observations and measurements; citizen perception surveys.
c. Quality of use.	c. Types of use (highest) permitted by quality of water.	c. Special study.
3. Noise and vibrations.	3. Noise and vibrations noticeable outside facility.	3. Intermittent tests; citizen perception surveys.
4. Solid waste disposal.	4. Quantities and waste disposal practices, including ultimate disposal of sludge.	4. Special studies; internally developed quantitative data.
5. Land:		
a. Surface characteristics.	5. a. Impact on terrain—on the quantity and quality of soil, erosion, water drainage, dust conditions, land cover, etc.	5. a. Engineering studies; studies of results of operating practices (as in farming and timber management).

Exhibit 4–6 (cont'd)

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
b. Land use.	b. Impact of types and amount of land use by facility on surrounding areas.	b. Special studies.
6. Ecology, flora, and fauna.	6. Effects on the ability of an ecological area or system to support flora and fauna—with particular reference to diversity, endangered species, displacement of the more desirable by the less desirable, etc.	6. Special studies.
7. Aesthetics:		
a. Aesthetic quality of corporate facility as a free-standing unit.	7. a. Attractiveness of exterior of building, grounds, etc.	7. a. Citizen perceptions; opinions of experts.
b. Harmony, composition with surroundings.	b. Suitability and attractiveness in terms of natural surroundings, other uses of land area, etc.	b. Citizen perceptions; opinions of experts.

NOTES:

The information that will be of most interest and value will be that which concerns the following.

1. Absolute quantities; comparisons with regulatory standards or known danger points; comparisons with performance in prior periods; relationship to best practical and/or available technology; comparison with others in the industry.
2. Share of total regional pollution.
3. Effects of major new facilities and activities (including construction).
4. "Irreversible" land uses.
5. Citizen perceptions and experts' views.
6. Corporate policies with respect to environmental matters and procedures.
7. Efforts made and planned to enhance the environment or reduce damaging effects; the results achieved or expected; capital costs; operating expenses, and cost recoveries.
8. Research and development efforts.

five | Nonrenewable Resources

General Comments

Whether the world will someday face an acute scarcity of essential materials is a question that came to universal attention when oil-producing nations embargoed oil exports in the fall and winter of 1973–74. The answer will depend, in the long run, not only on political actions but also on geological realities, technological developments, living standards and habits, and population levels. A continuing scarcity of essential materials or a vast escalation in their cost would have not only enormous economic consequences but also important social impacts.

Availability of nonrenewable resources is a concern for people who will live in the near and long-term future. It is, in this respect, similar to a concern for the physical environment. Its claim on social measurers lies in the generally, but not uniformly, held view that an excessive use of nonrenewable resources by the present generation is unfair to generations which follow. The fact that the presently living are in an unequal competition for scarce goods (based on an unequal distribution of wealth and purchasing power) is an important, current socioeconomic concern as well.

Those who hold this view believe that future generations will be harmed if present actions (1) deprive those then living of access to materials or make them available only at a cost that is so high as to greatly reduce other aspects of their standard of living or (2) leave them almost completely dependent on technological solutions that are presently unknown or unproven or may contain serious known or potential dangers. They hold further that increases in population will aggravate the demand side of the equation. Finally, they believe that, until a practical solution can be found, society should take those measures that are prudent to "increase" its supply of usable nonrenewable resources and to reduce or hold its consumption "within reasonable bounds," even though the total impact of such actions will, in terms of centuries and millenia, be small.

Much of the concern with resource consumption relates to materials used to manufacture, package, and distribute a product and to the energy requirements arising from the product's use. The resources may be consumed by the company itself, by a supplier of goods (such as a producer of raw or semifinished materials or parts) or by a supplier of services (such as light, heat, power, and transportation) or by the general public in its role as consumer.

Publics

The public most concerned with the use of nonrenewable resources can be defined as those consumers who will be adversely affected to an important extent by the absolute or relative shortage of those resources. They include all consumers, or, for practical purposes, all except those who are living at a primitive or marginal level of existence. The publics most affected will be those living when the scarcities are most severe; thus, they will primarily be those living in future generations (if the basic consensus is correct).

Major Actions and Impacts

The requirements for nonrenewable resources that are established by a company are affected primarily by five major classes of actions:

1. The design characteristics of its products and their related packages.
2. The useful life of those products and the ability to reuse the products for their original or secondary purposes or to recycle their constituent materials when the products themselves are no longer useful.
3. The manner in which products are used by customers.
4. Energy requirements for making and distributing the products and using them.
5. The successful creation of new materials, the discovery of new sources and recovery methods for existing materials, and the development of efficient modifications of the characteristics of existing materials to prolong their use.

A company's performance in these areas would seem to provide a reasonable indication of its overall performance with respect to nonrenewable resources. Why this is so will be indicated in the remainder of this section.

Design

The initial opportunity to affect resource requirements lies in the design of the product or, moving one step back, in the nature of the "product concept" itself. "Product concept," for these purposes, can be thought of as the group of consumer needs or desires that the product is intended to satisfy and the extent of such satisfaction. Obviously, the designers of the Volkswagen and the Cadillac, for example, each appeal to a different set of consumer needs and desires.

It is not necessary to pass judgment on the values involved to agree that product concepts have a major influence on resource consumption. Product concepts affect the size, useful life, range of accessories, and energy requirements of some of the major products of American business —automobiles, housing, and appliances, for example.

Product concepts are, to a great extent, reflections of pervasive cultural and social patterns; in addition, product concepts become, over a period of years, one of the major forces molding the cultural concepts that are embodied in the country's social values. Changes in product concept cannot be made without regard for these values, which establish the limits of speed and direction and the risks involved in making changes. Nevertheless, it is a fact that nonrenewable resources can be used more rapidly or conserved by reason of (1) a new product concept or (2) a change in the manner in which an existing product concept is carried out. An example of the former would be a change which altered the idea that size, as of a car or house, is a symbol of prestige. An example of the latter would involve extending a product's useful life by design improvements —making it stronger initially, improving accessibility for repair, or foregoing elaborate style changes intended primarily to increase sales by obsoleting otherwise useful items.

Within the constraints of any particular product concept, the design can also affect resource consumption in a variety of ways. These include using designs which—

1. By carefully matching the characteristics of the materials used with the functional requirements of the products, do not overdesign the product or its package.

2. Use renewable resources before nonrenewable resources, plentiful nonrenewable resources before scarcer ones, recycled materials from both internal processes and customer-related recycling in preference to raw materials, and so forth.
3. Use processes that reduce manufacturing-related scrap, such as from cutting losses; produce high yields of finished products; and minimize damage during storage, transportation, and marketing.
4. Extend the useful life of the product and reduce requirements for service and service parts.
5. Reduce the operating requirements for light, heat, or power through weight reduction, improved aerodynamics, insulation, and other approaches.
6. Employ manufacturing processes that reduce energy requirements.

The foregoing are examples of positive results from design. In many instances, they would be accompanied by potential social or economic disadvantages; thus, each of the six items should be considered to end with the phrase "and is not accompanied by more than offsetting disadvantages."

Reuse and recycling

A second major approach to resource conservation lies in the reuse of a product by the original or a second owner (returnable bottles, secondhand automobiles, and clothing) or in recycling (aluminum cans and newspapers). A variation, more apt to be found in groups or societies with marginal incomes, is the use of such products for other than their original purpose. Each of these approaches has possibilities whose limits are set by economic considerations, social habits and convenience, the manner in which materials are combined in the finished product, company efforts to develop reuse and recycling programs, and governmental regulations and laws.

In some industries, reuse and recycling programs are important. In other industries that use substantial amounts of materials, this is not the case.

Customer use

Resources can also be conserved by improving the way a product is used by customers. By appropriate customer education, in the form of specific

product instruction and more general product-oriented education, the customer can be led to extend product life by proper use, care, and maintenance. Proper care and maintenance can, in turn, be fostered by design characteristics, the cost and availability of repair parts and services, and the ease of home maintenance.

Energy requirements

A product's requirements for energy are influenced to a considerable extent by the design of the product. The insulation, motor and compressor efficiency, and other design characteristics of a refrigerator, for example, play a prominent part in determining the amount of energy used, regardless of the habits of a particular consumer.

A product's energy requirements are also significantly affected by customer habits—the more so when the product's operation is less automatic. No one would contend that customers' habits can be established by a manufacturer. On the other hand, they can be influenced by (1) the operating limits permitted by the design characteristics of the product, (2) the characteristics of the product stressed in advertising, instructional, and educational material, (3) the company's influence on regulatory standards, and (4) the general education of the customer undertaken by the company. Automobile speeds can, for purposes of illustration, be considered in the light of each of the four categories.

Increasing material resources

A major opportunity for increasing the resources which are available for future use lies in reducing *net* resource consumption. This can be accomplished in several ways:

1. By developing new materials out of renewable resources or out of nonrenewable resources not previously considered to be sources of commercially useful materials.
2. By discovering new deposits of existing materials.
3. By discovering and applying technologies for extracting greater quantities of useful materials from ores and similar basic substances.
4. By improving the characteristics of materials so that they will last longer.
5. By making it possible to use materials more efficiently (as in energy conversion) so that a given amount will be more productive.

Each of these approaches is based, to a considerable extent, on advances in science and technology.

Other areas

Other areas in which both manufacturing and nonmanufacturing companies can affect resource consumption need little explanation. They include—

1. The efficient use of light, heat, and power in all corporate functions, from manufacturing to administration.
2. The existence of (a) industrial engineering, design engineering, and other departments whose functions include resource reduction and (b) programs designed to enlist widespread attention to these problems within the company.
3. Research and development projects, new product development projects, and similar efforts to reduce resource consumption.

Measurement

The measurement techniques to be applied in connection with nonrenewable resources are neither unique nor difficult. As indicated in Exhibit 5-1, they consist mainly of (1) analyses of internal data, expressed primarily in physical rather than financial terms, (2) descriptions of policies, procedures, and organizational arrangements, (3) analyses of the consequences of design changes, (4) laboratory and field tests, and (5) customer surveys of selected aspects of product life, product care and use, customer education, and so forth.

Reductions or increases in the use of materials or the substitution of renewable or more plentiful materials for those in shorter supply will frequently be made for a mixture of social, economic, and technological reasons. To try to identify those portions properly attributable to each reason seems futile. Thus, on the same pragmatic grounds that have been discussed elsewhere, social measurements should not be concerned with motivation.

Similarly, when savings in energy or in material consumption result from changes in the manufacturing and distribution processes, no attempt

should be made to attribute the changes to social or economic objectives. An appropriate report would simply include changes in consumption, with an acknowledgement that various objectives were sought.

Items that may provide useful information about a company's social performance in connection with nonrenewable resources are cited in Exhibit 5-1.

Scarce Renewable Resources

With increasing frequency, the concern society has evidenced with respect to nonrenewable resources is being applied to resources that are coming to be seen as renewable but not unlimited.

There are a number of reasons for this situation. First, the population of the world is increasing rapidly; cultural changes are frequently increasing per capita consumption; there is widespread starvation when countries and peoples can neither raise enough to feed themselves nor earn enough to buy food. Second, there is strong competition for residential, commercial, industrial, and institutional uses for much of the same land that yields foodstuffs and other natural products. Third, in the absence of international agreements, individual companies and nations compete for short-term product results (as in the case of fishing), possibly reducing long-term resource supply. Fourth, adverse environmental effects are causing problems for natural production methods. And, last, the danger exists that the increased use of marginal lands or the reduced fertility of already productive lands will require greater use of fertilizers, energy, and other nonrenewable resources to make them adequately productive.

The examples given above relate primarily to food and food-producing resources. However, similar examples could be cited for natural products used for other purposes.

It is clear that, in the future, some natural resources will have to be treated as though they were at least partially nonrenewable. This will make some of the factors discussed elsewhere in this chapter of significance. Some will relate to conservation and to the more effective conversion of natural raw materials into useful, finished products. Others, however, will pertain to increases in the total quantity and quality of natural products produced and to the effectiveness of the processes by which this is brought about—as measured in terms of costs and nonrenewable resources consumed.

Exhibit 5–1

Nonrenewable Resources—Suggested Information and Sources

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
1. Materials used in manufacture of product and related packaging material.		
a. Source, quantity, and relative availability.	a. Analysis of material consumption (including rough breakdown of purchased semifinished products) showing quantities used and relative availability or scarcity. Sources of materials used, broken down among new, internally generated scrap and recycled materials. Major changes in the foregoing, with an attribution to various causes set forth in 1.b.	a. Straightforward analyses of internal data, with appropriate assumptions and estimates.
b. Causes of change.	b. Description of significant actions taken and their consequences (see 1.a), e.g., • changes in product concept • changes in design specifications to reduce overall consumption, permit use of more abundant and scrapped or recycled materials, renewable resources, etc. • improvements in yield and reduction of rejects • changes in manufacturing techniques and procedures • support of recycling activities	b. Descriptions of policies, procedures, and organizational arrangements; analysis of results achieved.

c. Research and development and other future-oriented activities.	c. Nature of projects and their objectives or expected impacts; results of recent research and development efforts.	c. Appropriate descriptions of projects, scale of efforts, analyses of results of recent projects, etc.
2. a. Actions to bring customer-required *useful* life and material-related *physical* life into greater harmony.	2. a. Product life of principal products in hands of customers; customer requirements and preferences vs. physical condition of product at time of discard; determination of reasons for product discard. Relative emphasis on durability and serviceability; on service utility vs. style; on speed of introduction of innovations and technological obsolescence.	2. a. Customer survey; analysis of causes of customer discards and physical condition of products; review of corporate product policies and strategies.
b. Marketing-related programs.	b. Relative emphasis on service utility vs. other product characteristics tending to obsolete the product.	b. Same as 2.a.
c. Customer education.	c. Efforts to extend product life by appropriate education of the customer in the care and proper use of the product.	c. Same as 2.a; customer surveys of adequacy of these efforts.
d. Service and repair.	d. Steps taken to minimize need for servicing requirements, to simplify home maintenance and provide commercial servicing facilities.	d. Same as 2.c.
3. Conservation of energy.		
a. Arising out of operations—e.g., manufacturing, distributing, administration, etc.	3. a. Extent of reductions in light, heat, power, transportation, etc., with some indication of major cause/effect relationships.	3. a. Straightforward internal analyses by major areas. Policies, procedures, and organizational arrangements to achieve reductions.
b. Arising out of product use in hands of customers.	b. Reductions in requirements for energy of major products and improvements brought about by various methods, such as design changes and customer education in care and use.	b. Laboratory tests. Field analyses of products under actual conditions of use.

Exhibit 5–1 (cont'd)

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
4. Creation of "new" materials of commercial value.	4. Creation of materials out of renewable resources or out of substances not previously used as materials. Discovery of important new and different deposits or sources of existing materials. Development of scientific and technological knowledge and techniques for increasing the recovery of materials from existing or submarginal sources or for increasing the conversion of the material into energy or other uses. Improvements in materials arising from modifying their characteristics so that they will be useful longer.	4. Internal information as to efforts and results achieved through research and development, and exploration (for minerals, petroleum, etc.).
5. Renewable but limited resources.	5. Appropriate items selected from 1 to 4 above, relating especially to conservation, efficient production and conversion to useful products, efficient use, renewal, development of new sources and qualities, etc.	5. Same as above.

six | Human Resources—Employees

This chapter deals with measurements and other indicators of a company's efforts and activities related to its employees and the impacts upon employees as a consequence of the personnel programs and operating practices of the company. It excludes those impacts a company may have upon the same individuals in such roles as customers, neighbors, and stockholders.

Human resource accounting

The assessment of a company's social performance in relation to its employees may appear to be closely akin to human resource accounting,[1] which, during the past few years, has become a frequent subject of research, publication, and, to a limited extent, practical application. Yet, there are few similarities between the two subjects. Both deal directly with the study and assessment of people within a company, and both rely, in part, on measurement techniques used in the fields of psychology and sociology. But the objectives and, consequently, the definitions most useful in the two areas are usually quite different.

In the context of this chapter, social measurement encompasses the measurement and communication of the nature and magnitude of a company's activities and the impacts made on its employees and their families through the work relationship. This includes the company's influence on the objective and subjective quality of life of its employees through its reward system and through the physical, psychological, and organizational characteristics of the work environment itself. Human re-

[1] The term human resource accounting is used to describe a variety of systems that differ considerably in scope. The human resource accounting system discussed here is sometimes called human resource asset accounting. Some other plans incorporate certain "social measurements," as we are using that term.

source (asset) accounting, in contrast, deals with the investments in its employees made by a company and the importance of employees to the company, based upon their ability and inclination to perform in such a way as to contribute to the company's objectives. In other words, social measurement deals with the assessment of a company's impacts on its employees as perceived by them and by society in general; whereas, human resource accounting deals with the employees' impact on a company as perceived by the company.

The two subject areas are not diametrically opposed, and need not be treated as mutually exclusive. The common feature of human resource accounting and the human resource component of social measurement is found in the intersection of individual fulfillment with organizationally related performance. It may be argued that satisfied or self-fulfilled employees are usually recognizable as achievers and performers for the company with which they are associated. If this hypothesis is adopted then human resource accounting and social measurement can be seen to have certain common interests. This hypothesis is, however, unduly restrictive. Social measurement deals directly with the employment-related quality of life of employees and may go well beyond the more limited areas of human resource (asset) accounting.

Social measurement

Society has evidenced a great and growing concern for the employer's role in health, safety, and other aspects of the welfare of its employees quite apart from how these matters relate to the objectives of the company. Employed members of society spend close to half of their waking hours in organizational environments. This environment, the work experience, and the financial rewards that work provides have critical influences on the employee and the employee's family. Through employment, a person may experience a high level of self-fulfillment and economic reward. On the other hand, the employment experience may be punishing and may contribute to personal dissatisfaction, physical discomfort, or injury or even to illness, crime, and other detrimental experiences (and their attendant social costs) no matter what the economic benefits of employment may be.

Conventional accounting measures economic rewards identified as costs to the employing organizations and as income to those employed. Social measurement should provide measures for assessing a company's actions and their economic, physical, and psychological impacts on employees.

A company's actions affect employees in four areas: financial rewards, the physical work environment, the psychological work environment, and the opportunity to have a job.

Publics

The impact of employment falls directly on the employees of a company and almost as directly upon their immediate families. Rates of pay, work hours, job hazards, psychological and physical working conditions, and the sheer possession of a job exert a direct and powerful influence on both workers and managers and their immediate families. They also indirectly affect the neighborhoods where employees live through their impact on relationships between neighbors, community leadership, neighborhood attitudes and goals, and its economic well-being. These matters are discussed in chapter 9—The Community.

The employment contract and conditions obviously affect present employees and also exert an influence on potential employees—those who are seeking work or are being sought to work. Past employees may also continue to bear the scars (discharge, disabling injuries) or reap the rewards (pension benefits, valuable experience) of previous employment. Our focus is primarily, but not exclusively, upon present employees, be they managers or laborers. Exhibit 6-1, at the end of this chapter, presents suggested areas of impact on human resources and sources of information and evidence about them.

Major actions and impacts

Financial rewards

The financial rewards of employment are of major importance to an employee and his family. In a highly specialized exchange economy such as ours, where an individual typically produces only a small portion of the wide variety of goods and services that he consumes, an individual's standard of living is closely tied to purchasing power. It is for this reason that both an adequate level of income and an adequate supply of the "required" goods and services are included in the list of conditions closely associated with quality of life in Exhibit 2-3.

It can be contended, of course, that financial rewards are purely economic. In fact, it can be argued that, since employment with a particular company is not compulsory, financial rewards encompass *all* aspects of the employment relationship and that there is no such thing as social—or at least "uncompensated social"—elements in that relationship. We shall, as elsewhere, not be concerned with that argument, since, no matter what its legitimacy, at this stage of development information that relates to significant social conditions will qualify as social.

Most of the financial rewards of employment are well known. They are (1) the direct compensation derived from wages, salaries, bonuses, commissions, and so forth and (2) the wide variety of fringe benefits (often estimated to range from 15 percent to 25 percent of direct compensation) for which the company pays wholly or in part. Some of these fringe benefits are intended to be of current value to the employee (for example, health insurance, day care facilities, or a recreational program). Others, such as pensions and social security, are intended to provide future income, particularly upon retirement. Still others, such as those relating to unemployment, long-term illness, disability, or death, provide various forms of income protection. In a sense, fringe benefits in particular reflect not only the results of employment bargaining but also the nature of income-related concerns of individuals and society.

Most of the information required to determine the cost of direct compensation and fringe benefits according to meaningful classifications of employees can be obtained from the company's accounting and personnel records. Further information (such as that relating to the nature and extent of insurance coverage) can be derived from a description of the plans. Comparisons of data within the company, showing the situation existing among divisions or locations or over a period of years, can be obtained by using data compiled in a similar manner. Comparisons can also be made with other companies operating in the same geographical area(s) or industry, when such information is made available on a basis using common definitions and terms.

A final source of comparison is government data (at least for direct compensation). The government accumulates a wide variety of income statistics for the country as a whole and for parts of it. In addition, it establishes income levels that it designates as providing specified standards of living in various localities. Such figures can be used as an independently established basis of comparison either for selected classes of employees or for all employees.

Much of the information that can usefully be obtained about direct compensation and fringe benefits is listed as item 1 and elsewhere in the

list of suggested information (Exhibit 6-1) appearing at the end of this chapter.

Another aspect of income—beyond its absolute level—is its stability and security. Information of this type should be available from a company's internal records, since they will normally contain data with respect to turnover, longevity, reengagement, and other patterns of employment. For purposes of producing meaningful social information, additional analyses may be required in which instability is analyzed by classes and causes, and by which the nature, extent, and success of the company's efforts to create greater security and stability are determined.

Wages, salaries, fringe benefits, and other financial rewards for employment are a natural and easily measured area of social reporting. Yet, financial rewards are only one, and not always the most important, factor in determining an employee's quality of life. Studies have shown that employees rank compensation high when directly questioned about the relationship of their wages or salaries to their overall job satisfaction, but more indirect questioning shows that compensation drops substantially in importance once employees have attained a given level of income. Labor and managerial employment contracts more often specify such nonfinancial aspects as the physical, psychological, and organizational characteristics of the work environment.

Physical work environment

A continued rise in the incidence of work-related injuries and health problems has produced a near unanimous concern for the health and safety aspects of the work environment. Business has, of course, been concerned with health and safety for many years. Recently, however, governmental regulations have become exceedingly important. Early concern for safe working environments was manifested in the passage of the Federal Coal Mine Safety Act of 1941. This act was superseded by the Occupational Safety and Health Act of 1969, which reflects concern on a much broader scale than did earlier legislation by delineating guidelines for a healthy and safe working environment for virtually every working American. It requires employers to furnish a safe environment and to comply with the Occupational Safety and Health Administration's (OSHA) operating and reporting regulations.

OSHA covers health conditions such as exposure to toxic materials, mechanical equipment protection, noise, walking and working surfaces, fire protection, ventilation, emergency egress, and work rules and procedures. Under OSHA, each company must keep a record of occupational

injuries and illnesses and exposure to toxic materials. No company may bar an OSHA inspector from any part of a facility, even if trade secrets are at stake, or disguise the names of ingredients to protect proprietary knowledge, because the work force may then not know to what hazard it is being exposed. Obviously, the law, its administrative regulations, and its reporting requirements are intended to have a considerable impact on the work environment.

Relevant working condition criteria differ among companies and among industries. Some criteria are amenable to a quantification of conditions and others only to verbal description. In general, this area of measurement lends itself to factual assessment. Quantification can be used quite extensively even though the dollar costs of illness, injuries, and deaths (other than those attributed to loss compensation, medical expenses, and insurance) are indeterminable or rather arbitrary.

Conditions of the work environment for which information can be developed range from those affecting health and safety to those producing physical and psychological comfort and discomfort.

Working Conditions	Measurement Unit or Basis of Reporting
Work Place	
Crowding	Employees per square foot of work space
Lighting	Lumens
Temperature	Average, range
Ventilation	Absence of smoke, odors or foreign materials; amount of fresh air per hour
Toxic materials	Presence and protection from them
Machine safety	Conformance to OSHA standards
Working surface	Conformance to OSHA standards
Noise	Decibel levels and length of exposure
Fatigue	Hours of rest or relief periods
Working Area	
Cleanliness and orderliness	Conformance to company and OSHA standards
Rest and restroom facilities	Adequacy, employee perception of adequacy
Food facilities	Adequacy, employee perception of adequacy
Physical Facilities	
Resources to do the job efficiently and effectively	Description; employee perception
Attractiveness	Employee perception

The following employment notice for a corporate manager of environmental health and safety is of interest. It says a great deal about not only the knowledge requirements of that position but also the problems of physical working conditions and their interplay with information.

CORPORATE MANAGER

Environmental Health & Safety

The ever-increasing complexity of the industrial environment creates new health and safety problems which must be solved. These solutions require the professional expertise of intensively trained and analytically inclined specialists with broad knowledge and experience in the three primary areas of health and safety—*Industrial Hazards, Health Physics,* and *Environmental Hygiene.* In addition, a detailed knowledge of state and federal safety laws, including OSHA, is necessary.

Since the technical content of the position is high—radiation, high power, toxic fumes, and pollution are involved—and statistical analysis is required, a technical degree would be preferred. It is probable that about ten years of experience would be the minimum necessary for understanding the wide variety of problems associated with the position.

An ability to effect changes, through line management, with tact, persuasiveness, and understanding of mutual problems, is of critical importance.

The management is enlightened and progressive. The position is a responsible one.

By extension, the physical work environment can include the conditions of transportation to and from the job. Although some might consider this to be of marginal concern—essentially an employee's problem—there is no question but that many employees (especially those employed on other than the day shift) incur substantial travel inconvenience and risk of personal safety. The dispersal of manufacturing facilities often requires access to private transportation, which can also be a major barrier to finding and keeping a job.

Many of the impact measures listed above can be quantified, although few can be quantified in terms of their ultimate impacts on the employee's quality of life. Most can be measured in more or less objective, verifiable terms such as numbers of units or decibels, but not in dollars. Some depend completely upon the subjective perceptions of employees. In general, however, the physical work environment is an area of social impacts that can be and is being measured.

Items 3 through 5 of Exhibit 6-1 suggest matters about which information might be developed with respect to the physical environment.

Psychological work environment

Increased attention has been paid in recent years to the relationship of work and the work environment to the social and psychological needs of employees. This involves such matters as the recognition, challenge, growth, and self-fulfillment that employees derive from their jobs; the day-by-day satisfactions of seeing the results of one's work and the enjoyment of relationships with coworkers; and, on the more negative side, the incidence of offensive supervisors, ethnic prejudice, excessive competition, tension, stress, and performance uncertainty. There is some argument about the importance of these items—particularly work interest—to various types of employees, but they are, at least, unresolved items of concern in the minds of many.

There are a number of examples which provide evidence of this. The social and psychological aspects of jobs and work places are important elements in labor negotiations, and they often affect job and career choices. Some companies, notably in Scandinavia, have changed the social structure of the organization and the work environment in attempts to deal constructively with these problems. A limited number of examples of similar efforts have been undertaken in the United States. The Occupational Safety and Health Act of 1970 provides for research in areas which include the "psychological factors" involved in the work environment. Social scientists have pointed out that dissatisfying work environments may produce in employees a condition characterized by a feeling of powerlessness, meaninglessness, isolation, and self-estrangement and that more satisfying work environments may create opposite employee self-perceptions and thus result in greater personal productivity and consequences that are beneficial for the company, the individual, the family, and the community.

Recognition of the importance of the social and psychological aspects of the work environment has preceded an ability either to identify the causes precisely or to measure the results effectively. It is clear, however, that three types of measurement are useful:

- Assessment of social conditions
- Measurement of employee behavioral outcomes
- Ascertainment of employee attitudes and perceptions

The first type attempts to categorize and measure the social conditions to which employees are exposed in terms of work groups, supervision, and management style. The second focuses on aspects of employee behavior such as absenteeism and turnover and uses them as surrogates for satisfaction with job conditions. The third seeks to identify the attitudes and perceptions of employees and to measure their intensity directly; consequently, it is the most difficult to do well, but it is the most revealing.

The assessment of social conditions focuses on the formal aspects of the job, such as supervisory authority and company regulations and on the informal nature of the work environment, the nature of supervision, the relationships and camaraderie existing among coworkers, and the challenge and personal fulfillment derived from the job. Although these influences arise in part from organizational considerations, the organizational factors are usually diffuse and difficult to isolate. Thus, attention is usually directed toward measuring employee attitudes and perceptions—the second and third of the measurements described above. Some research has been done in measuring employee behavior as a surrogate for employee attitudes. And, not infrequently, personnel departments collect various kinds of data, in order to monitor and assess such negative behavioral outcomes and their positive opposites as the following:

Voluntary resignations
Absenteeism
Tardiness
Grievances and complaints
Work stoppages
Restrictions on output
Tension-related psychosomatic illness
Alcoholism
Drug addiction
Suicides

These measurements are more useful in identifying "how good or bad things are" than in identifying particular causes.

A more direct approach to measuring social and psychological impacts involves the third approach—asking employees their views on job-related matters and on the quality of their working lives. Various psychological testing instruments have been developed to measure employee job attitudes

and provide a basis for inferring such matters as the extent of individual psychological well-being or the quality of working lives. Two general approaches are (1) direct inquiry about perceived satisfactions or dissatisfactions and (2) a comparison of what employees say they want from their employment with what they say they are actually receiving. Either approach may be used, or one may be used to support or supplement the other. In either case, corporate executives may look to independent researchers to carry out selected questioning to provide freedom from bias and an anonymity that facilitates obtaining the data.

As an organization becomes desirous of more closely monitoring its social impacts on its employees, it may choose to integrate many of these psychological measures into a systematic data collection process. In doing so, measurers should call upon expertise from other disciplines for assistance. Care needs to be taken to select appropriate testing instruments, to administer them in a manner that will elicit clear and accurate responses, and to draw from the data obtained only those inferences that can be properly and adequately supported.

Items 6–10 in Exhibit 6-1 suggest a number of important types of social information which could be useful with respect to psychological conditions.

Job opportunity

Events of recent years have brought a growing awareness to this generation of both the positive and negative consequences to the individual and society arising out of (1) the sheer possession of a job and (2) the opportunity to use one's full capabilities to progress in that job free from the barriers of discrimination. In spite of a growth in total individuals employed, the greater increase in the potential working population and variations in economic activity have brought about an increase in unemployment and a restriction in job opportunities that have affected all groups in society. In addition, the particular problems of very large and important groups—especially minorities, women, youths, older persons, and the physically and mentally handicapped—and the special difficulties they face in gaining employment, access to specific types of jobs, or promotions to higher levels of responsibility have become increasingly evident.

One result of these increases in social concern has been extensive action on the part of government, public interest groups, and private organizations. It has been accompanied by substantial efforts on the part of business—as well as nonprofit institutions and government—to modify formal

employment practices and personnel programs and their actual application in corporate life. Some of the areas that have been affected are—

Hiring policies and practices
Recruitment efforts
Job design and the establishment of job qualifications
Pre-employment testing
Preliminary orientation and training
Subsequent training and management development
Supervisory policies and practices
Individual counseling
Promotion policies and practices
Seniority determinations
Compensation patterns
Work facilitation (day care, transportation, etc.) to meet the needs of particular groups

Much of the information required to describe both the policies and practices of the company and the results achieved will be found in company procedures manuals, employee handbooks, union contracts, personnel department records, and the various affirmative action documents and employment reports required by governmental regulatory agencies. Much of it will be available as reasonably objective and readily available data. However, most companies also will find that much of what appears to be objective as well as much of what can readily be seen to be subjective will be viewed differently by management, personnel executives, different groups of employees, and the community. Thus, perception and attitude surveys will have an important role in providing information. Items 11 through 14 of Exhibit 6-1 relate to job opportunities.

Measurement

Measurements needed for assessing a company's impacts upon its employees include such items as (1) compensation and fringe benefit costs, (2) statistics, verbal descriptions, and physical measures (such as decibels) for aspects of the physical work environment, and (3) for the social-psychological area, the assessment of social conditions, measurement of

employee behavioral outcomes, and ascertainment of employee attitudes and perceptions. Two sets of measures—employee attitude surveys and the assessment of conditions relating to equal opportunity—are discussed more fully because of their rather unique nature and because of the impact of federal legislation.

Employee attitude surveys

A considerable body of both practical and theoretical knowledge exists about ways to assess the perceptions and attitudes of people in various settings. The principal mechanisms used in dealing with employees are interviews and questionnaires that attempt, either directly or indirectly, to elicit feelings about aspects of jobs, supervisors, coworkers, and so forth. In using questionnaires, analysts are required to give careful consideration to tendencies, either recognized or unrecognized, to supply false or misleading information. Such problems are often caused by the types of instruments used and by the difficulty of precisely conveying ideas and thoughts in commonly understood terms. Problems are also likely to be the result of assumptions by those interviewed about the personal repercussions of supplying certain kinds of data. The use of measures of difference between expectation and fulfillment may, in most instances, be less deliberately biased than direct measures of perceived satisfaction. However, these are not easy determinations to make, and measurers should not trust their natural intuition in such matters. They should draw and rely on expertise, primarily in this special aspect of psychology.

Questionnaires often deal with factual matters; but, even more often, they deal with subjective feelings and reactions. Questionnaires are sometimes designed to obtain free-form answers; often, perhaps more often, they are intended to obtain answers drawn from multiple choices which are more readily tabulated and interpreted. Properly administered and skillfully interpreted, information thus gathered can be revealing in a way that information obtained from other sources cannot, even though the subject matter puts limits on the accuracy that can be expected.

Assessment of equal opportunity

The employment and personnel practices of companies have come under strong governmental and public pressures in recent years through the requirements of the Equal Employment Opportunity Commission.

As part of the process of developing baseline data, identifying the nature and extent of subsequent corporate activities, and determining both current status and progress, the government has established extensive and detailed reporting requirements. It has developed standard forms, defined terms, set reporting dates, and otherwise promulgated information requirements. Within the limited areas covered by these laws, it has indirectly established what most companies use as their internal and external social measurement systems. (For some internal purposes such as hiring, promotion, and retention, supplemental data are important, but for most purposes, government-required data are the principal source of information.)

Most of the information required is not particularly difficult to develop. It deals essentially with identifiable actions and results rather than with intangibles and with identifiable populations of employees and applicants rather than with an unidentified and undifferentiated mass of people. That is not to say that compiling the information is not costly, time-consuming, and painstaking. But, it does mean that a substantial amount of information is available about a subject area in which not only the regulators but also the general public are interested, and that it is available in a standard form. Of further interest is the fact that, since outsiders know of the government requirements, they are aware of the existence of the information.

The results have been of considerable interest:

1. Much information has been made available in annual reports. This has taken many forms, from simple statements of corporate objectives to comprehensive statements of policies and practices and the publication of employee-status data as submitted to the government in the EEO-1 reports. An example will be found in chapter 12, which deals with external reporting.
2. Data contained in individual company reports also have been used to compile data for meaningful groupings of companies. Much of this has been done by the regulatory agencies for their own purposes; limited amounts have been made generally available. In addition, however, there have been infrequent compilations on a confidential basis by trade associations or similar groups. Finally, studies have been made —by the Council on Economic Priorities—of information obtained (with differing degrees of success) from companies and industries which the council has chosen to study. In the last-mentioned instance, not only were companies compared with other companies in the in-

dustry but also with the population of the city or cities in which they were operating.

3. Data contained in a company's EEO reports have been used internally to plan and assess the results of its equal opportunity programs. In at least a few cases, a company has compared its status with the demographic characteristics of the area from which it draws its employees. In some instances, the data have constituted one of the items on which the overall performance of managers has been judged.

Human Resources—Suggested Information and Sources

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
Income, Security and Stability		
1. Income		
a. Current income	a. Direct compensation (such as wages, salaries, commissions, bonuses, profit-sharing) • in total • per capita compensation by deciles or quartiles • per capita compensation for meaningful classifications of employees	a. Payroll and personnel records
	• comparisons with industry and community averages and with own data for prior years (and with changes in Consumer Price Index) • comparisons with U.S. government data on "income requirements," "poverty level cut-off," etc., especially for lower deciles	Industry or community surveys, governmentally provided statistical data
	Fringe benefits of essentially short-term nature (e.g., health insurance)	Internal policy and practice statements, brochures
b. Future income	b. Pension plans • essential elements • rights of employees, trusteeship, etc. • current cost, prior service liabilities • treatment of present retirees	b. Description of plans; corporate accounting and personnel records; survey of present retirees
	Social Security • current costs of corporate contributions	Accounting records

Exhibit 6–1 (cont'd)

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
c. Income protection	c. Unemployment insurance payments to government and union plans Practices in terms of illness, long-term disability, death, etc. Re-employment assistance	c. Accounting records Policies and practice statements Policies and practice statements
2. Security and stability a. Overall situation	a. Statistical information as to • turnover and longevity of employment • involuntary turnover • days of employment per employee for year • re-engagement/retention policies for whatever classifications of employees are most meaningful	a. Personnel records
b. Relationship to causes • schedule-related instability • obsolescence of skills and facilities • other, such as product discontinuance • uncontrollable variations, e.g., • supplier strike • customer demand • seasonability	b. Attribution of instability to major causes Nature, extent, and success of efforts to produce greater security and stability, including training efforts to prevent or compensate for technological obsolescence, transfer policies (relocations), peak/valley smoothing, etc.	b. Analysis of internal data Special studies,* policy/practice statements, analysis of training course content, etc.

Physical Work Environment		
3. Health and safety		
a. Severity and frequency of industrial accidents and illnesses (fatal and nonfatal)	a. Statistical information on frequency and severity, with identification of causes; additional information on good or bad situations	a. Internal records; OSHA reports, special studies and analyses
b. Protection provided against exposure	b. Existing and increased efforts to provide protection against physical, chemical and other risks attributable to materials, processes, equipment, etc. Fatigue relief, and similar practices	b. Internal proposals, authorizations, departmental reports of safety programs, process changes, etc., and analyses of results; results of OSHA audits and smiliar reviews by inside and outside experts Work practices; policy statements
4. Work place conditions		
a. Avoidance of essentially negative conditions	a. Situation with respect to such matters as work space (crowding); heat, light, ventilation; noise	a. Special studies and analyses;* comparisons with "good" practice as evidenced by government regulations, industry practice, etc.; surveys of employee perceptions and attitudes
b. Positive attractiveness	b. Aesthetics, cleanliness, and orderliness of plant, rest and restroom areas, food facilities, etc.	b. Special studies and analyses; surveys of employee attitudes and perceptions
c. Adequacy of resources to perform job	c. Adequacy of equipment, support facilities, organizational procedures and supervisory assistance to carry out work in time and manner expected	c. Surveys of workers and supervisors; special studies and analyses of indicated problem areas
5. Individual and public transportation (to and from the job)	Safety and availability of private and public transportation and parking	Surveys of employees; special studies and analyses
Psychological Work Environment		
6. Job content	6. Psychological satisfactions derived from work —current status, improvements, etc. Efforts made to increase work satisfaction through changes in work scope (usually via enlargement, greater challenges, and increases in responsibility), increases in variety, etc.	6. Special studies and analyses; surveys of employees

Exhibit 6–1 (cont'd)

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
7. Coworker relationships	7. Positive aspects (e.g., cooperation, human interchange, etc.) Negative aspects (e.g., isolation, antagonism, tension, etc.)	7. Special studies and analyses; surveys of employees
8. Management-worker relationships	8. Basic management style • openness, communication, democracy/ autocracy • tension and competition vs. cooperation • work pace, handling of operational changes	8. Special studies and analyses; surveys of employees
9. Nonwork opportunities	9. Opportunities for personal and family leisure and recreation (vacation, holiday, out-of-town travel arrangements, etc.)	9. Policies and practices; surveys of employees
	Company-sponsored opportunities for employee participation in social, cultural, recreational activities as an extension of work relationships	Practices; survey of employees; data on participation
10. Personal assistance	10. Nature and extent of counseling on personal problems	10. Survey of employees; data on utilization
Opportunity and Equity		
11. Employment distribution	11. Distribution of employment by groups, especially such disadvantaged groups as racial minorities, women, youth and aged, physically and mentally handicapped, the inadequately educated. Such information would include data on work force representation in total, by position classes, by stability of employment, etc.	11. Personnel department records: EEO reports; comparable external data
	Efforts to improve distribution	Personnel policies and practices; data on activities and their effectiveness

12. Employment opportunity facilitation	12. Actions to facilitate the employment of those with a personal disadvantage by such means as day care centers, special transportation arrangements, special pre-job training and initial orientation work rearrangements, and suitable hiring/testing/recruiting policies and practices; the results achieved	12. Personnel practices; information on nature and extent of activities undertaken and employee utilization; survey of employees and of potential or former employees
13. Upward mobility	13. Actions to increase the promotability of employees, both directly on the job and by means of training opportunities, personality and health improvements; results achieved	13. Personnel policies and practices; activities undertaken as indicated by training and personnel department records; surveys of employees; personnel department records of upward mobility
14. Job creation	14. Increases and decreases in job opportunities through corporate growth or contraction—in total and by major position classes	14. Personnel department records
Overall		
15. Overall relationship	15. Evidences of company's overall relationship with its employees in relation to— • voluntary resignations • absenteeism and tardiness • grievances and complaints • work stoppages • below-standard output • tension-related psychosomatic illness • alcoholism and drug addiction • suicides	15. Personnel department records; surveys of present and former employees

* It is assumed throughout that special studies and analyses would be made by insiders and/or outsiders with appropriate kinds and degrees of skill and appropriate degrees of independence.

seven | Suppliers of Purchased Goods and Services

Every company buys goods and services from outside suppliers. The goods may range from stationery and office supplies to electronic subassemblies, the services, from refuse removal to banking and advertising. No company is self-sufficient.

The effects that the purchasing company's actions have on its suppliers are chiefly economic. But since all economic effects have some social aspects, a company's relationships with its suppliers should be among the matters considered for purposes of social measurement.

A supplier is the recipient of impacts. In addition, a supplier is also an initiator of actions that have social impacts. To the extent that these actions are influenced by the purchasing company, the supplier can be considered, for purposes of social measurement, to be a kind of extension or agent of the purchaser.

A company should not be expected to control its suppliers as though they were employees. Nevertheless, for purposes of social measurement, company-supplier relationships can assume some of the attributes of employment: (1) by the *choice* of the suppliers with whom it deals, a company can choose or endorse one or another standard of social conduct; (2) by the *specifications* established for its contracts, it often can influence, if not control, practices in its part of its supplier's business (the U.S. government, for example, has done this on aspects of defense contracting for years); (3) by the *extent of its own use* of the purchased goods and services, a company can affect the total of the "goods" and "bads" associated with them; (4) finally, by the *general manner* in which the company treats its suppliers, it can directly affect their economic well-being and the quality of their social performance.

Publics

The publics encompassed by the company/supplier relationship are

- The suppliers that sell goods and services to the company and their employees/families.
- By extension (when the impact is significant), those other publics that would be affected if the company were itself producing the good or service being purchased. These publics will most often be the community in which the supplier is located and often that set of social conditions closely related to the environment and the use of nonrenewable resources.

Major Actions and Their Impacts

Supplier selection

By *choosing* the suppliers with whom it deals, a company can support one or another of different standards of social conduct. Supplier selection, based in some degree on the supplier's social performance, can serve to augment or detract from the social performance of the purchasing company itself.

Whether a company should select its suppliers with due regard for *their* social performance is a matter of some controversy. Some would consider it to be an unwarranted intrusion into the affairs of others, somewhat akin to interfering in the life of the family down the street. Others would say that, while theoretically desirable, it is currently impractical in view of the absence of public information about the social performance of others and suitable bases on which to pass judgment. Others, however, would point out that supplier selection policies which consider social practices are already applied extensively by the federal government and to a relatively smaller degree by industry. They would point out that supplier selection is one of the most important ways that companies have of influencing other companies to consider social impacts. And, finally, looking inward, they would point out that just as a company should not be able to free itself from responsibility for the socially undesirable consequences of certain actions merely by paying someone else to do offensive work (e.g., dumping toxic materials into a stream), so should a company not be wholly exempt from accountability for the socially undesirable consequences of the operations of its suppliers.

Thus, there are arguments for and against treating supplier selection as an element of social performance. The comments made in this chapter should be of assistance to companies that desire to do so. If they do, the use of "socially desirable" suppliers would be recognized in measuring the social performance of the company; for, if one accepts the notion that purchases involve an extension of the company into not only the economic but also the social aspects of a supplier's performance, then the social performance of suppliers becomes an aspect of the purchasing company's social behavior. Assuming the existence of information, some degree of positive social performance should accrue to the company if the overall social performance of its selected vendor was adequate in those factors deemed by society to be most important. Beyond that, on the basis of current consensus, some degree of positive recognition should be given to the selection of suppliers with such characteristics as (1) substantial ownership, management, or employment from among minority groups or handicapped persons, (2) small entrepreneurship, (3) location in a depressed area, (4) an outstanding pollution control record, or (5) a satisfactory or outstanding social performance record in other respects.

In the event that a company and its suppliers were included in a consolidated report there obviously could be a problem of "double-counting," for which an appropriate adjustment would have to be made. As has been concluded in an earlier discussion, however, this possibility is sufficiently remote at present for the problem to be considered of little moment.

Contract specifications

By the specifications established for its contracts, a company can often influence practices in "its portion" of a supplier's business. If the company provides a large and separable part of a supplier's business, it can influence, if not establish, the major social conditions that apply for that portion of the supplier's business, even if not for all of it. Examples include such conditions as requiring that the supplier—

- Maintain a specified work force composition and observe specified working conditions (such as on a major construction project).
- Follow specified ecological practices (such as when strip mining is involved in a major fuel contract).
- Use recycled or recyclable materials (such as in the purchase of cans or containers).
- Operate at or above agreed-upon pollution control standards (such as in a paper manufacturing contract).

- Follow specified selling and promotional practices (including ethical standards) in marketing agency arrangements.

The purchasing company, by setting forth not only the technical but also the social specifications of the contract, might be said to assume whatever costs or gains are associated with them and thus can be considered to be entitled to be, or required to be, accountable for the beneficial or detrimental social effects they produce.

Contract specification is obviously not practicable when the quantity purchased is but a small portion of the supplier's output; in that case, selection becomes the alternative.

Extent of use

A third aspect of a company's social performance relates to the extent of the company's use of the various purchased goods and services. Obviously, a company must buy or produce a variety of goods and services if it, in turn, is going to have a product or service to sell. However, it should be able to affect its level of social performance by increasing or decreasing the quantities of specific goods and services that it buys, when, by reason of their scarcity, nonrenewable nature, environmental effects, and similar characteristics, this is a socially desirable objective. This could be done by (1) finding ways to reduce the use of goods and services with undesirable consequences through economizing, product redesign, or the use of alternatives and (2) working with suppliers to reduce the undesirable consequences that can be observed when the goods and services are considered on a consolidated, system, or cradle-to-grave basis rather than from the standpoint of the vendor or purchaser alone.

General treatment

The final aspect of the company-supplier relationship having important social implications is the general nature of the relationship itself. A dominant company (or group of dominant companies) can effectively establish the limits of a supplier's potential social performance by establishing the *general* conditions within which that supplier operates. Such a situation is, of course, more apt to exist when the company is the dominant party by a considerable margin and the supplier does not or cannot cease to do business with the company.

The impact the company makes arises out of what are normal business procedures; whether the impact is good or bad depends upon the way these procedures are applied. They can directly affect the operations of the supplier or indirectly affect the supplier's economic capabilities and/or its psychological environment.

Among normal business procedures having a considerable influence on a supplier's social performance are the following:

- Order flow (with its impact on employment stability), delivery, cancellation, change practices.
- Policies and practices with respect to returns.
- Price negotiation tactics.
- Credit and payment terms.
- Efforts to enhance supplier capability (especially for those suppliers that are less capable) through providing access to technical advice, product use information, managerial, and/or financial assistance.

Using competition as an orderly means of allocating resources to economically efficient producers is an underlying concept of our economic system. Competition presupposes, among other things, that the buyer and seller will be in adversary positions. The implication of this is that competition should give recognition not only to short-run economic consequences and long-run economic considerations, but also to the social impacts made on employees, their families, the supplier's community, and others.

Measurement

Several theoretical approaches exist for dealing with supplier/company relationships by methods which parallel those already in use in accounting or economics. Since each would require the use of a single measurement unit, they are, at least for the time being, curiosities. One technique would require the supplier to include on its invoice a notation of the SMUs applicable to the sale. A second technique would be the same, except that only the standard SMUs would be transferred, with the variation remaining the responsibility of the supplier. The third technique would involve no transfer at all, but the development of an output analysis in which the supplier would show an allocation of its SMUs by industries

for later consolidation and breakdown on the lines of economic input-output matrixes.

Although it might be interesting to explore further how these theoretical systems would work, it will be more productive to examine methods that are practicable under present circumstances. What methods can now be used?

1. An examination can be made of the procedures employed in selecting suppliers and in specifying the conditions of major contracts in order to see whether consideration has been given to the social as well as the economic aspects of a supplier's performance. The procedures examined presumably describe the social criteria deemed to be important, the representations required of the suppliers (and the company's right of verification, if so desired), and suggested contract language. The extent to which the contracting process actually reflects the established procedures can be ascertained by reviewing selected contracts and contract files and changes in supplies practices that the application of this procedure has brought about.

2. A review can be made to establish the existence and effectiveness of procedures for identifying items that are accompanied by substantial adverse social impacts in the process of being manufactured and distributed by the company's suppliers. This can be accompanied by a study of the company's efforts to economize in its consumption of those products and services, to find or develop substitutes, or to redesign its products so as to reduce requirements for them. The nature and volume of purchases so affected can probably be determined, along with the nature and extent of the changes that have been brought about.

3. A review can be made of the company's policy statements, procedures, and actions to determine the nature of its expected and actual performance in selected areas involving supplier relations. Such areas as order flow stability and cancellation policy are good candidates for study by this method. Much of the information can be obtained from the company's records; however, there will probably be some need to survey suppliers to ascertain suppliers' attitudes and, to the extent that this can be done, to find out about the company's indirect impacts on the suppliers' employees and their communities.

Information that might be found useful in preparing social impact measurements in regard to suppliers is shown in Exhibit 7-1, following.

Suggested Information on Suppliers

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
1. Supplier selection	1. Description of major social criteria and their relative importance Changes in suppliers selected; reasons and volume of purchases involved Changes made by continuing suppliers in order to comply with company criteria; nature and magnitude of changes brought about Percentage of purchases meeting all criteria satisfactorily	1. Statements of policy and procedures; supplier profiles; internal analyses of changes, volumes of purchases, etc.
2. Contract specifications	2. Nature of socially significant contract terms specified Areas of use, volume of purchases affected, and magnitude of impact	2. Statements of policy and procedures; internal analyses of changes, volumes of purchases, etc.
3. Utilization	3. Procedures used to identify and evaluate social impacts associated with specific goods and services Efforts made to maximize the "good" and minimize the "bad" by reduction in use, substitution, recycling or reuse, product redesign, etc.; extent of resultant change	3. Statements of policy and procedures; results of studies; records of changes
4. General treatment	4. Policy Actions taken and results achieved Supplier satisfactions and dissatisfactions	4. Statements of policies and procedures; analysis of impacts of changes; surveys of suppliers

eight | Products, Services, and Customers

This chapter discusses those measurements and forms of social information that relate to (1) the acquisition and use of the company's products and services by its customers and (2) the effects of their use on other publics, the physical environment, and nonrenewable resources. The discussion deals with purchase and use of products and services by individual customers (the general public), although much will also apply when the customer is another business entity, a government, or a nonprofit institution.

Under conditions of perfect competition, the customer's acquisition and use of a company's products might well be considered irrelevant from the social measurer's point of view. In reality, however, imperfect competition prevails for a variety of reasons ranging from imperfect consumer knowledge through uneven income distribution patterns to interference with normal supply-demand-price relationships by government intervention or marketing or other business practices. Under these conditions, elements of the relationship of individual buyer to seller have important social aspects. So, too, does the relationship of all buyers to all sellers, for that brings into play the role of all business in relation to the needs and desires of all society rather than just the individual company's self-selected role.

Some would extend still further the social aspects of products and services and their distribution, asking ethical and philosophical questions like the following:

1. Does a company have an obligation to produce products and services that have intrinsic worth in terms of social values and goals, or is consumer choice, from among products and services developed by businesses primarily to maximize profits, to be relied on for this purpose? If it is to be the former, who shall set the social values and goals and define the relationship between them and the company's products and services? If it is to be the latter, how can consumer choice be

relied upon unless offerings represent a broad enough range of social as well as economic values?

2. Should concern with intrinsic social worth focus only on the products themselves, or should it also treat with a broader concern that some would deem to be "excessive materialism at the expense of other values" and/or with the real or presumed conflict between private and public welfare?
3. Does a company (particularly if it is a major supplier of what a large number of customers find to be essential or near-essential products) have an obligation to provide its products to everyone in its market area who finds them essential on a basis that will assure continuity of supply, or is the role of the company solely to seek those customers, markets, and product opportunities that it believes will maximize its profits? In short, are there "public interest" products, customers, and markets for which the company should feel a special responsibility?

These and similar issues, it might be worth repeating, are not the authors' issues. They are issues that are raised by society directly or that underlie some of its specific, practical concerns. They, likewise, are the concern of many corporate executives, who find both the philosophical issues and their practical application devilishly difficult to resolve.

We shall proceed in this discussion on the following pragmatic premises: (1) market preferences are much more likely to reflect real preferences when choices can be made with the benefit of full and fair disclosure; (2) market preferences can best be expressed when there is a meaningful diversity of products and services; (3) companies can, if they desire, make judgments about the intrinsic social value of their products and services, but cannot expect to be either the sole or final judges of this matter; and (4) both companies and customers have an obligation to consider the effects that the purchase and use of specific products and services have on others. Most of the social information suggested reflects one or more of these premises.

In this chapter, as has been the case elsewhere, we are not concerned whether a matter is, per se, economic or social. If a significant portion of society considers that something is of social concern, we will consider that it is a matter about which corporate executives might wish to develop social information. If further justification is needed, there is the fact that, in our kind of society, in which an individual purchases far more of the goods and services he uses than he produces, the existence of "appropriate" goods and services, in "appropriate" variety, value, and availability, produced and marketed under conditions that are "socially responsible"

to all concerned publics, is likely to be an important condition affecting the quality of human life.

Publics

The publics most concerned with the acquisition and use of a company's products and services are (1) the customers themselves and (2) those affected by a customer's use of the company's products and services. Obviously, others are also affected by virtue of their employment or supplier relationships and by reason of the impacts which product specifications, in particular, have on manufacturing, research and development, marketing and distribution, and thus, indirectly, on the publics affected by them.

Major Actions and Impacts

The most important social concerns relate to the characteristics of the products and services, market coverage and marketing methods, sales financing practices, post-sale activities, responsiveness to public reactions and customer requirements, and to the results of product use and disposal on the user, the community, the environment, and the consumption of resources.

These concerns reflect the expressed interests of major political leaders, governmental commissions, regulatory agencies, organized consumer interest groups, and businessmen. President Kennedy, for example, stated in a message to Congress in 1963 (and restated by Presidents Johnson and Nixon) that consumer rights should include the following:

1. The right to safety—to be protected against the marketing of goods which are hazardous to health or life.
2. The right to be informed—to be protected against fraudulent, deceitful, or grossly misleading information, advertising, labeling, or other practices, and to be given the facts one needs to make an informed choice.
3. The right to choose—to be assured, wherever possible, access to a variety of products and services at competitive prices; and in those industries in which competition is not workable and government regulation is substituted, the assurance of satisfactory quality and service at fair prices.

4. The right to be heard—to be assured that consumer interest wlil receive full and sympathetic consideration in the formulation of government policy, and fair and expeditious treatment in its administrative tribunals.

The National Business Council for Consumer Affairs, a presidential commission composed primarily of business executives, submitted a report in 1972 entitled "Action Guidelines," dealing in detail with essentially the same matters. Congress has passed laws about them, and the Federal Trade Commission and other federal, state, and local agencies have issued regulations and initiated court actions. Better Business Bureaus have been active for long periods. In increasing numbers, consumer groups have argued for the advancement of their interests. In short, there is much evidence and agreement about what is of social concern.

A list of suggested information about products and services is included as Exhibit 8-1. It contains an exceptionally wide variety of items that reflect these social concerns.

Nature of products and services

Different goods and services have different values for different people. Even the same person will find that identical goods or services have different values in different quantities or different circumstances. Nevertheless, social measurement should be able to deal with what many companies consider to be of major importance—the fundamental purposes to be served by the company's goods and services or the "corporate mission." Even if the user of social information should consider the company's viewpoint to be biased in its own favor, or at least inconsistent with his own, the company should be given an opportunity to present its point of view about the value of its products and services—whatever they may be. Such a statement of corporate mission puts the company's perception of its product objectives on record and provides a partial basis for evaluating how responsibly it has accomplished these objectives.

Market coverage

Market coverage also has something of a philosophical orientation. It is concerned with whether a company (1) attempts to design its products and services to meet the needs of all groups finding them essential (or

perhaps even highly desirable), (2) feels an obligation to make those goods and services that are considered essential or highly desirable available to its customers on a continuing basis, and (3) has marketing and distribution policies and practices that make the company's products and services physically available to all or only to selected groups of those who desire them. The implication, which some no doubt would find objectionable, is that a company (particularly a dominant supplier) has an obligation to do these things whether or not it desires to do them. We are not attempting to pass judgment on this issue. We are, instead, reflecting expressions of social concern over such matters as "red-lining," the removal of stores and other facilities from urban and rural areas, the availability of health services, and the tendency for stripped-down or basic versions of products to disappear from the market as "commodities." Clearly, the interests of society will best be served when essential products and services that match the needs of all of its citizens are made available on a continuing basis. Whether this makes society better off economically or socioeconomically and whether a specific company has an obligation in this regard are difficult questions that can only be addressed when information about a company's policies and practices is available for study.

Characteristics of products and services

Producers selling to sophisticated corporate or governmental buyers normally find themselves dealing with customers who have well-defined requirements for the products they need. They are rather well acquainted with the deficiencies in various suppliers' products and with the desirable features of new products and, in other ways, are well informed. In the area of sales to the general public, however, needs or desires are less precisely defined; product specifications are based on less firm statements of requirements or expectations; and customers are less sure of either the characteristics of the products they buy or of how well they will satisfy their needs. Under such circumstances, producers undertake a broader role than they assume in more rigidly established industrial or governmental sales situations. The producer becomes heavily concerned with marketing—identifying customer needs, establishing product specifications, determining how well present products satisfy customer needs, and establishing how the demand can better be met in the future through improvements in the product and reductions in its cost. Thus the producer's role has distinctly social aspects and overtones.

Customers are presumed to acquire products and services to satisfy their needs and desires. How completely this occurs depends upon a number of factors. One factor is the efficiency and effectiveness with which the products and services actually perform the functions and fulfill the purposes for which they are sold. This is important whether the product is essential or not. The effectiveness and efficiency with which food provides nutrition, lawn mowers cut grass, and phonograph records reproduce musical performances contribute to the extent to which needs and desires are satisfied. The extent to which effectiveness and efficiency can be improved or costs reduced through product and productivity improvement has a major impact on the material aspects of society's standard of living. For this reason, selected information about product performance and improvement is socially important.

A second aspect of matching product performance with customer needs and desires involves the notion that, since needs and desires are not uniform, products likewise should not be uniform. This leads to products with different specifications—or, in more technical terms, to product differentiation and a range of products from which customers can choose. When product differentiation is based on important differences in customer desires and requirements, it clearly serves to meet this (social) objective. When differentiation is based on insignificant matters, largely cosmetic in nature, it is far less likely to provide a true range of product choices. (It may well constitute a waste of economic resources, but that is another matter.) In fine, information about the bases for differentiation and the consequent range of choices is important in social measurement.

Of course, there are many product and service characteristics with important social consequences for customers, individually, as well as for all of society. A number of these have been included under item 3 in Exhibit 8-1, and undoubtedly others of a similar nature will be found to be important in particular situations. Item 3 includes factors relating to safety, durability and reliability, ease of use, repair and reuse, aesthetics, noise, odors and similar matters, and reusability and life cycle costs.

It is possible, and frequently very logical, to contend that the economic relationships of the seller and buyer take all these product characteristics into account, since each characteristic is, or could be related to, the price at which the product is sold. Further, it can be contended that the price at which a product or service is sold sets limits on what is economically practicable. Nevertheless, the matters mentioned are normally judged to be of significant social concern.

Marketing practices

The fourth factor deals with the company's marketing practices. These are frequently matters of social concern—and of governmental regulatory concern also. Why these concerns should be considered social deserves a few words of explanation.

Defining marketing practices as a social concern involves recognizing the customer as an individual, having limited knowledge, limited bargaining position, and limited opportunity to be heard effectively. General Motors, buying from General Electric, would consider that product specifications, quality, warranty, and service were an integral part of the *economic* transaction—not things that would carry the label of "social." Both parties would operate on the basis of substantial knowledge and resources as more or less equally competent competitors. The major reason that marketing practices are considered to have important social aspects in this book, however, lies in the real or presumed inequality of the relationship between the individual and the company. Some may question whether that makes the matter social, but the fact remains that a significant portion of society believes the subject is of social interest—which at this stage of development should be enough.

If this line of reasoning is accepted, the interest of the social measurer in the various aspects of marketing becomes clear: Marketing should be based on the full and fair disclosure of important information, an absence of false and misleading information, and an avoidance of excessive pressures and manipulation that interfere with the customer's ability to determine the product's capacity to satisfy his desires or needs. The argument by no means suggests that products should not be aggressively marketed, but only that this be done on a basis that permits a fair choice. Interestingly, this supports the economists' argument that product selection arising from choices made under inappropriate conditions cannot be counted on to produce an economically appropriate allocation of economic resources.

The foregoing explains the social measurer's interest in the three items described as advertising and promotion, on-site marketing, and restraint of trade in Exhibit 8-1. A fourth item—the avoidance of undesirable side effects and efforts to create desirable side effects out of advertising and promotion—is, of course, of a different nature. It recognizes that a message designed for one purpose (such as, promoting a product) can in the process have many other effects (such as, providing desirable or undesirable role models) and that many marketing messages (because of the skill with

which they are prepared, the frequency with which they are repeated, and the inherent power of the media in which they appear) create important, even if not completely understood, impacts on society.

Customer financing

In the type of economy that has been developing in this country, access to the market for goods and services often is closely linked to access to consumer credit. As such, social implications are inevitable. They arise primarily out of the following:

- Extent of coverage or availability of credit
- Adequacy of disclosure of costs and conditions
- Collection and repossession policies

Each of these items has important economic implications. Nevertheless, there are sufficiently important social aspects to them to have brought about recent legislation such as that relating to "truth in lending," studies of the costs and availability of credit by at least one public interest group, and public discussion of the availability of credit to women—especially spouses —and minorities.

Post-sale activities

A further area of public interest relates to what we have called post-sale activities, with full recognition of the fact that, when information about such activities is known prior to purchase, it also tends to affect the initial decision as to whether or not to buy a particular product or service, and to do so at a particular price.

The first area—customer education in the proper use of the product or service in order to derive the benefits available, to avoid injury to the user, and prevent premature wear of the product—has been the subject of considerable attention in recent years. Certain companies, especially those in the food and appliance industries, appear to have made particular efforts in this regard. No doubt, some of these efforts have been made to increase sales, to provide a better legal defense in product liability suits, and to suit other essentially economic reasons. Nevertheless, there are important social effects when customers use their purchases effectively.

The second and third areas—warranties and other recourses in the event of dissatisfaction, and service—are self-explanatory, as are the reasons for their inclusion in Exhibit 8-1.

Responsiveness

A matter of considerable and frequently articulated concern on the part of consumer groups is the responsiveness of companies, overall and individually, to customer reactions and requirements. Whether companies have been adequately responsive in the past is perhaps subject to argument; whether they have been perceived to be less than adequately responsive by a large number of customers is hardly an issue. Many feel that it is hard to be heard, or hard to be effective when heard.

The suggested items of social information cover several aspects of this relationship—attempts to obtain the ideas and opinions of customers and noncustomers, handling specific problems and complaints, and using the information received.

Impact of use of products and services on users and nonusers

The final item included in Exhibit 8-1 relates to impacts on society arising out of using and disposing of a product and its packaging materials when they cease to be of use. There are many well-known examples of product use with both good and bad side effects. Automobiles, hard drugs, and beer cans are among those frequently discussed.

The consequences of product use, it should be noted, are not normally encompassed in the price of the product nor in the buyer-seller relationship. For this reason, the economic and social impacts fall on both users and nonusers, either in the form of governmental or individual costs or the degradation of such free goods as clean air, the natural landscape, and other aspects of the environment.

The impacts of the use of products and services need not, of course, be negative. In fact, there is a presumption that, even if some aspects of use are negative, there are more than offsetting positive impacts for the individual, if not for society as a whole. Thus, those social concerns arising out of product use are concerned primarily with reducing or eliminating the negative impacts and enhancing the positive consequences of product use. They are concerned mainly with impacts that affect (1) the user's ability to function as an effective member of society and (2) such social conditions as relate to various forms of pollution; by-product and waste disposal; aesthetics; crowding, safety, health, and other aspects of the cultural and physical infrastructure; the behavior of the user in relation to others; and the preemptive utilization of natural resources that might otherwise be available for other purposes.

Most of these concerns stem from dissatisfactions with business performance in fairly widespread areas. However, this is by no means universal as, in many instances, performance could be and is being judged as satisfactory or substantially improving or both. The areas of concern have thus been expressed neutrally—or at least that has been our objective—with the implication that information about both positive and negative performances should be developed.

Measurement

Given the variety of subjects discussed in the preceding section, one could logically and correctly conclude that virtually every available measurement technique would be useful in providing some portion of the information called for.

These could include techniques for—

1. Determining the existence of policies and procedures relating to social aspects of the company's products and services, and the assignment of responsibility for carrying them out; developing information as to the extent that they are producing the intended results.
2. Comparing corporate practices with those set forth in guidelines or specifications established by trade associations or other business organizations for programs of voluntary compliance.
3. Comparing corporate practice with that set forth in governmental rules and regulations.
4. Comparing corporate specifications (such as those pertaining to product safety) with those established by authenticating governmental or independent testing laboratories.
5. Surveying customers and noncustomers to determine
   - their experience in dealing with the company and its products,
   - their satisfactions and dissatisfactions,
   - their needs and desires (self or otherwise perceived),
   - their ideas for changes, and
   - their reactions to the social consequences that arise from the use of the company's products by its customers, the nature of the company's advertising, and related matters.

6. Determining the extent and nature of organized reactions to the company's activities, including, for example,
   - sustained actions (such as, adverse legal decisions, cease-and-desist orders, consent decrees) of governmental agencies in such areas as advertising, restraint of trade, product safety, and product quality, and
   - conclusions reached by responsible self-appointed critics or evaluators, such as the Consumers Union, Better Business Bureaus, and consumer groups.
7. Accumulating and analyzing internal data, such as those that relate to or are generated from
   - a comparison of product specifications with those of competitors,
   - product purchases by and availability to various classes of customers,
   - product performance in the hands of customers (as evidenced by service data, warranty information, complaint analyses, safety statistics, and so forth), and
   - test and quality control information.
8. Identifying specific actions taken and the expected consequences of efforts made in specific areas (such as, product design, quality control, and improved labeling) to maintain or improve past performances.

To provide all the desired data, it is necessary to look beyond the records developed strictly for internal operation. Information may be gathered from sources such as the following:

- Surveys of existing customers.
- Surveys of public needs (whether all individuals are now in the customer groups or not).
- Reports of independent evaluators, whether self-appointed or not, provided that the evaluation represents a reasonable attempt at legitimacy and objectivity.
- Sustained contentions of violations of regulations and laws or positive approvals by regulatory agencies.

Surveying customer experience, reactions and needs, and/or the responses of others not now in the customer group (particularly those in minority and lower-income areas) is difficult, time-consuming, and expensive. At times, such surveys rely on selected panels or on small numbers of individuals who are interviewed or who otherwise report on an in-

tensive, in-depth basis. On other occasions, a larger number of individuals is involved, but on a basis that places substantially greater reliance on self-analysis and self-reporting. In each case, there are important problems of sample size, participant selection, the nature of the questions and the interpretation of responses, the possibility of bias and the difficulty of extrapolating to different "populations." Those acquainted with market research and public opinion surveys can attest to the difficulties involved. They can also, however, attest to the fact that, when surveys are made skillfully, with numerically adequate samples, under conditions that tend to elicit complete and honest responses, much can be learned that cannot be learned in any other way. They, likewise, can attest that when these conditions cannot be or are not met the results can be uncertain, if not misleading.

Many of the methods developed to carry out market and opinion research will be capable of direct application or adaptation to the task of ascertaining the company's social profile in product and market areas, especially if appropriate psychological and sociological skills are made available to help in specifying the data to be obtained and in analyzing and interpreting the data collected.

Surveys obviously will produce the best results when the responses are indicative of the respondents' real experience, beliefs, and feelings. Even approaching this objective involves difficult technical and psychological problems (what questions to ask and how; how to elicit true answers). In addition, it involves the possibility of intended or unintended bias. These problems have led a number of companies to use independent research organizations even when they possessed or could have acquired the internal capabilities necessary to make the survey. There are undoubtedly situations where outside organizations are most appropriate. There are others, however, where a direct approach with the company's identity completely revealed will be more productive. When third-party interest in the survey results is great, the need for independence is of considerable, if not overriding, importance.

Suggested Information for Products, Customers, and Services

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence*
1. Nature of products and services (corporate mission)	Purposes served and relationship to quality of life conditions, social values, and goals	1
Intrinsic worth of products and services (optional)		
2. Market coverage		
a. Extent to which products, particularly essentials, meet the needs of all customers—particularly those of minorities and lower income groups	a. Existence of product differentiation based upon needs and ability to pay	1, 3, 5, 6
	Sales and analyses showing extent of purchases by various social groups	5
b. Assumption of responsibility for continuity of essential products and services (e.g., utilities, fuel, food, transportation) in contrast to a purely profit-maximizing philosophy	b. Policy statement; practical evidences of preparations or of actual actions	1, 6
c. Extent to which company attempts to serve all markets with essentials by means of marketing and distribution policies and facilities	c. Existence of policies, procedures, and facilities	1, 3, 5, 6
	Sales analyses showing extent of purchases by various social groups	5
3. Characteristics of products and services		
a. Effectiveness and efficiency with which stated functions or purposes are fulfilled	a. Comparative performance data, under conditions of normal use, related to key determinants of utility	1, 2, 3, 5
	Nature of improvements made or in the offing; research and development activities	6

* Refer to Key on page 146.

Exhibit 8–1 (cont'd)

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
b. Diversity of choice based on significant differentiation, related to important aspects of product use	b. Bases of differentiation in physical, price, and other terms and indication of ranges offered	1, 5
	Differentiation to meet social requirements (see item 2)	1, 3, 5, 6
c. Customer-use characteristics		
Safety	c. Safety record in hands of customers	3, 4, 5
	Hazards and safety features	1–6
	Improvement efforts	1, 5, 6
	Record in hands of customers	3, 4, 5
Sanitary aspects (noncontamination)	Design features and procedures	1, 2, 4, 6
	Quality control	1, 5, 6
	Record in hands of customers	3, 4, 5
Durability and reliability	Design features	1–6
	Quality control	1, 5, 6
	Physical life vs. obsolescence	1, 3, 5
	Customer experience	3, 4, 5
Installability and serviceability	Design features	1, 3, 5, 6
Reusability	Design features permitting or facilitating reuse where nonrenewable resources are involved	1, 3, 5
	Existence of policy/procedures	1, 6
Consideration of life-cycle costs (especially those for repairs, energy, and disposal) as well as initial costs	Typical results based on experience in customer use and laboratory tests	3, 4, 5
	Nature of policy/procedure	1
Aesthetic appearance	Typical reactions	3, 4, 5, 6

Noise, odor, and other nuisance abatement	Policies and procedures	1
	Design features	1–6
	Customer experience	3
d. Product improvement and productivity improvement	**d.** Nature and extent of major changes	5
	Interrelationship of the social and the economic	1
4. Marketing practices		
a. Advertising and promotion—full and fair disclosure; avoidance of manipulation of customers and prospective customers	**a.** Policy and procedures with respect to key aspects	1
	Reactions to specific advertising and promotion	2–6
	Specific efforts to avoid manipulation of children, the aged, the less-educated, foreign, and similar groups	1, 3, 6
b. Avoidance of undesirable side effects and efforts to obtain desirable side effects from advertising and promotion	**b.** Actions with respect to—	
	Nature of TV programming	1, 3, 4, 6
	Creation or perpetuation of undesirable stereotypes	1, 3, 4, 6
	Sensitivities of special groups	1, 3, 4, 6
	Support of social values and goals	1, 3, 4, 6
	Aural and visual intrusion on privacy, enjoyment of nature, etc.	1, 3, 4, 6
c. On-site marketing	**c.** Adequacy of information about product function, characteristics, and performance	1, 3, 6
	Packaging design and representations	1–6
	Grading and labeling	1, 2, 6
	Unit pricing	1, 2, 6
	Open dating	1, 2, 6
	Display techniques	1, 3, 4, 6
	Warranty or other remedy in case of dissatisfaction	1–6
	Nature of personal selling	1, 3, 6

Exhibit 8–1 (cont'd)

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
d. Practices in restraint of trade	d. Policy and procedures aimed at avoidance	1
	Performance	1, 4
e. Supplier relations—suppliers include advertising agencies, distributors, warehouses, transportation agencies, and others involved in the marketing and distribution process	e. See chapter 7	
5. Customer financing		
a. Extent of coverage	a. Equality of availability, subject to reasonable credit risks	1, 4
	Terms which fairly distinguish between various conditions of payment	1, 5
b. "Truth in lending"	b. Nature of disclosure of costs; repossession conditions and other credit terms	1, 3, 4, 6
c. Collection and repossession	c. Policies, practices, and methods of handling delinquencies and repossessions	1, 3, 4, 5, 6
	Personal counseling practices	1, 5, 6
6. Post-sale activities		
a. Customer education in the effective, efficient, and safe use of the product and service in a manner appropriate to the products' or services' characteristics	a. General public education (as for food, energy, and liquor)	1, 3, 5, 6
	Availability of user manuals and other user aids	1, 3, 5, 6
b. Product warranties and other recourse in case of claimed misrepresentation, malfunction, or other dissatisfaction	b. Policy and procedures	1, 2, 4, 5, 6
	Customer experience	1, 3, 4
c. Service	c. Policy	1, 3
	Distribution of facilities	3, 4, 5, 6
	Quality of service	3, 5, 6

	Speed of service	3, 4, 6
	Honesty	3, 4, 5, 6
	Cost	3, 4, 5, 6
7. Responsiveness to public and customer reactions and requirements	7. Availability (and encouragement) of open channels of communication	1, 3, 5, 6
	Active attempts to obtain reactions and ideas from customers and noncustomers	1, 3, 5, 6
	Handling of complaints and claims	1, 3, 5, 6
	Utilization of public and customer information	1, 3, 5, 6
8. Impact of use of products and services		
a. Impact on actual user	a. By-products of use, particularly those which affect the user's ability to be a desirable and/or effective member of society to a major extent (mental and physical health and well-being would be very important in this context)	1, 3, 4, 5, 6
b. Impacts on others indirectly affected by user's use and/or subsequent waste disposal, primarily as a result of affecting the various environments of others: the physical environment the cultural and aesthetic environment the political, social, and government environment the behavioral environment	b. Nature and extent of impacts	1, 3, 4
	Attempts to enhance the good and to minimize or compensate for the bad	6
c. Impact on current and future availability of scarce or nonrenewable resources	c. Nature and extent of impacts	1
	Attempts to reduce use through such efforts as product redesign, material substitution, and recycling	5, 6

KEY TO SOURCES OF INFORMATION AND EVIDENCE AS USED IN EXHIBIT 8–1

1. Policy statements and procedures, responsibilities set forth in position descriptions and studies of actions and results.
2. Special studies comparing company's product specifications with those recommended by trade associations and similar organizations, the requirements of governmental regulations, and authenticating testing laboratories.
3. Surveys of customers and noncustomers with regard to marketing and use of products.
4. Nature of organized reactions to company's products, marketing practices, services, etc., as evidenced by legal actions and complaints; studies and reports of consumer groups, public interest organizations, and governmental agencies.
5. Analyses of internal data as to specifications, quality and performance, market distribution and similar matters.
6. Actions taken to improve performance with actual or expected consequences.

nine | The Community

General Comments

It is not surprising that an institution—in this case, business—that has all the social and economic impacts on individual publics described in previous chapters should also have an impact on that collective public known as the community. Individual companies and business in the aggregate are large and powerful. They are the principal suppliers of goods and services and the main sources of employment. They are responsible for major changes in human relationships, in the development and application of scientific and technological knowledge, in standards of living and ways of life. Business receives from, contributes to, and acts on that part of society called the community. In what is both a deliberate and unavoidable set of relationships, companies and communities interact.

The kinds of impacts that companies make on communities are numerous and varied. They are physical in the sense that they affect air, water, roads, and terrain and make demands on the community's physical infrastructure. They are structural through their effects on government and such institutions as schools, hospitals, parks, and libraries. They are cultural through their effects on music, the arts, and similar activities, on community tradition and history, and on the distinctive customs and values of ethnic and other neighborhoods. And, they are sociopsychological in their influence on the image of the community and its citizens in their own eyes and in the eyes of their immediate and more remote neighbors.

The relationship of company and community, it should be noted, is not necessarily a permanent one. In spite of the length and intensity of a relationship and the economic and social costs its rupture may involve, companies frequently move a part or all of their operations. However, communities, as defined in geographic terms, remain where they are.

Under these circumstances, both the consequences of a company's continuing relationship with a community and the impacts of rapid and/or substantial changes in that relationship are important.

Publics

Community-related actions can be distinguished by the breadth of the public they affect. Employee-, customer-, and vendor-related actions affect particular publics. Community-related actions affect a more generalized public, our common notion of a community. Such actions affect individuals who may be employees, customers, and vendors, but they do so primarily in terms of their broader geographical, social, and political interests.

The idea of community is simpler than its actual definition. What are its boundaries? Is it the immediate neighborhood? the city? the state? the nation? the world? Does the definition vary according to the circumstances? Should community be defined according to essentially similar characteristics for local, national, and multinational firms? Are the limits of a community set in geographical, political, or ethnic terms? or on the basis of other societal characteristics?

The most useful approach to such questions, in our opinion, is to establish the boundaries of a community in relation to the observations to be made. When the objective is to determine the total impacts of an action, the limits of the community should be established to include the various areas to which these impacts extend. On the other hand, when the objective is to identify the impacts made on a specific community, as defined in geographic, social, or political terms, the impacts should be so identified as to reflect the narrower definition.

In short, a dictionary might define a community as "a unified body of individuals with common interests, living in a particular geographical area"; but, for our purposes, the community will exclude most of those interests covered by special relationships (for example, those of employment) and will enlarge or contract its geographical boundaries to reflect the nature of the interests involved. This is a pragmatic definition. It gives a sense of direction to the social measurer, even if it is not precise.

Major Actions and Impacts

At the end of this chapter, Exhibit 9-1 offers a list of items about which it might be useful to develop social information. The items are divided into two groups identified as (1) corporate citizenship and (2) operations-related policies and activities; in real life, however, some overlap is bound

to exist. Why they are important in assessing corporate social performance with respect to the community will be discussed in this section.

Corporate citizenship

Corporate citizenship is intended to encompass those aspects of a company's relationship with a community that would be taken into account in deciding whether a company, if it could be assessed like a private individual, would or would not qualify as a "community-minded citizen." The justification for giving prominence to corporate citizenship in an assessment of corporate social performance lies in the fact that, just as companies need and expect more from communities than in earlier and simpler eras, so also do communities need and expect more now from the companies located within their borders. The nature and extent of the response of individual companies to community needs vary considerably; so, too, do the total responses of all the companies located in individual communities. These variations give added significance to measurements in this area.

Four aspects of corporate citizenship can serve as rather good indicators of a company's performance—character espousal, participation in community activities, organizational example, and participation in social "miniprograms."

Character espousal. The limits to what a community can achieve in terms of its cultural, economic and physical environment are established by such factors as size, location, climate, topography and resources. However, even in the face of the same basic conditions, variations of greater or lesser attractiveness are possible. Business and business leadership exert a significant influence on the variation that is selected by virtue of the ideas they espouse about the kind of community they want and for which they stand willing to work. Companies can use their strengths to influence both the immediate conditions of community life and its longer-term physical, social, cultural, and economic goals. And they can do so, not solely by their expressions of support or opposition or by their apathy, but also by the indirect influence of their ideas on the plans and capabilities of the public and quasi-public organizations that are active in the community. A company's policies, statements, and attitudes in this regard are thus of importance.

Participation in community activities. At a more tangible level than the espousal of ideas lies the company's participation in community activities.

This occurs primarily through financial contributions (in cash or in kind) and the personal participation of executives and employees in the affairs of community organizations.

Making contributions to a variety of nonprofit organizations has become an established aspect of corporate life. Many contributions create benefits that can be rather clearly identified with the interests of the company, its employees, and the specific host communities in which it operates. Others, however, create benefits that are less direct but nevertheless influence the more general social, political, and cultural environment in which business and society in general exist. Taken together, financial and personal contributions are one way in which companies give expression to their goals for the narrower and broader communities.

The direct participation of a company's employees and executives in community activities is often at least as important as the company's financial contributions. More likely than not, however, those who participate will do so as private citizens, using their skills and experience for public benefit rather than for the accomplishment of corporate objectives. While participation in community activities often reflects the personal interests and aptitudes of individuals rather than employers, it is nevertheless clear that some companies, industries, and professions encourage community participation and provide training and support that help to increase the effectiveness of their personnel in such organizations. The participation of individuals as citizens cannot legitimately be claimed to be an aspect of corporate social performance; however, as a demonstration of the effectiveness of corporate efforts at encouragement, training, support, and so forth, it has a rightful place in such an assessment.

Two additional aspects of participation deserve brief mention. The first relates to the unusually important role that companies and corporate executives often play in creating or sponsoring *new* organizations that will fill important community needs and positively affect the quality of community life, such as hospitals and cultural and recreational facilities. The second is concerned with the importance of the private and public backing and encouragement that a company gives to the objectives and accomplishments of community organizations.

Organizational example. All companies of more than minimal size also affect communities by the individual and collective impacts of the examples they provide. In the same way that individual leaders affect their communities, companies and their managements set examples not only by what they say but also by what they do.

In most communities, real-life examples of corporate behavior in matters like the following would be considered important:

- The company's willingness to abide by the law and respect the reasonable rights of others in the absence of legal compulsion.
- Its respect for aesthetic values and pleasant surroundings.
- The public attitude it displays toward the impacts that it makes on the community (awareness, concern, disregard, disdain).
- The respect it shows for government and governmental processes.
- The quality of its public debate and behavior (particularly when corporate interests are involved) in the face of differences of opinion held by individual citizens, citizen groups, and governmental agencies.

These and similar examples have great significance in establishing both the general tone and the specific practices and attitudes of the community and its citizens.

Social "miniprograms." The final indicator of corporate citizenship relates to unusually extensive participation in social programs, essentially unrelated to a company's business, that are undertaken as part of a company's contribution to the welfare of the community. Such programs—or social "miniprograms"—are exemplified by activities that have been undertaken by some companies in urban housing. They can be considered to be social "miniprograms" (1) when they come about by substantial company initiative, (2) when they involve an activity that is for the most part otherwise carried out by governmental or nonprofit institutions, and (3) when they have only loose ties to the company's basic activities. Although it is an issue that does not have to be resolved for our purposes, such activities, by consensus, are not required or expected under "normal" standards of corporate responsibility. If social "miniprograms" fall within a company's concept of corporate citizenship, they should be so considered by that company.

Operations-related policies and activities

Important as the impacts of corporate citizenship may be, they will rarely rival those impacts arising more directly from the company's manufacturing, marketing, distribution and other operating activities. This is to

be expected because items falling into this second group result from the company's mainstream activities. Six areas of interest will be discussed briefly. While the specific choice of indicators made by a company should reflect the characteristics of that specific company's operations, those items discussed below will frequently be found to be important or to suggest others that are.

Location and relocation. The move of a major facility into or out of a community or a major expansion or contraction in its scale of activities normally creates a wide-ranging set of impacts on at least one community. In particular, as is most dramatically visible, the "losing" community may experience periods of substantial difficulty.

As the more extended discussion in the section on measurement indicates, the number and variety of impacts thus created are large. They affect not only employees and their families, but also the economic base and tax structure of the communities, the financial and human support provided for charitable and cultural institutions, community leadership, and the social, political, and physical infrastructures of the communities.

The importance of these impacts, if analyzed deeply enough, will be found to lie in the fact that a company does not merely reside in a community. It becomes a part of the community. Whether the company desires it or not, the community accommodates itself to both the advantages and the disadvantages of the company's presence and adjusts itself to providing the collective services that the company requires.

Employment. In an earlier chapter, we explored a company's impacts on its employees and their immediate families and suggested appropriate indicators of those impacts. That chapter notes that the impacts of employment extend beyond the employees to their community. These broader impacts arise out of the following:

- The level and stability of the salaries and wages paid to employees.
- The physical and psychological conditions of work.
- Steps taken to facilitate the employment and promotion of minorities, women, and others needing assistance to make employment feasible.
- The sheer value of "just having a job."

Some of these impacts emanate primarily from the actions of employees and their families and thus arise only indirectly from the actions of the company. They arise because employees with stable, high levels of in-

come are financially and psychologically able to make more positive contributions to the economic and social well-being of a community than are those in less favorable positions. The physical and psychological conditions under which work is performed also have important carryover effects outside the workplace. Even the mix of intellectual/physical and of managerial/worker jobs affects community interests and community leadership.

Community impacts also result from the opportunities provided for the employment and promotion of minorities, women, and similar groups, and the steps taken to make work possible for those who might otherwise be excluded. The latter might include child-care centers, opportunities for part-time employment, transportation to locations otherwise requiring a private car, and special working conditions for the handicapped. Such actions not only can result in income for those made able to obtain and hold jobs but also can create more satisfying self- and community images for whole groups of people. These, in turn, produce positive consequences for both the individuals and the community (including, perhaps, reducing the antisocial behavior that characterizes some who feel they have the least hope of improving their status through socially acceptable behavior).

Finally, the company's performance in the creation of employment opportunities or in "just providing a job" is important. The devastating effect of unemployment—especially of long duration—is well recognized. The positive contribution of a company to a community in creating and maintaining employment is, of course, the counterpart of the impacts of unemployment.

Use of local vendors. The value to a community of using local vendors is also important. The local economy is strengthened; local employment is created; and there is a sense of community that comes from the mutual reinforcement of business and social relationships. When there is an opportunity for using local vendors with considerable employment of, or ownership by, minorities, a double advantage is often created.

Obviously, there are economic and other operational limitations that affect the utilization of local vendors. Thus, one would expect management judgments to be made setting boundaries for this practice.

The physical environment. The impacts of corporate operations on the physical environment of a community can range from small to great. They include impacts that may be broadly defined as "pollution" and those that may be said to affect the use of land, aesthetics, human interest, and ecological systems. These matters are discussed extensively in chapter 4, where the importance to the community has been documented.

The physical infrastructure. The company's operations also have an impact on the physical facilities provided by the community as public property. The more obvious of these are roads, bridges, parking, and other facilities relating to the movement of goods and people; sewage and solid waste disposal facilities; and water and other public utilities. If the company is a major new employer or one already in residence that makes a major expansion in relation to the size of the community, virtually all the community's public facilities—from fire stations to parks and schools—will be affected. Rare, indeed, is the community whose public facilities are so readily expandable as to be able to accommodate an important change without some adjustment period.

Although the changes required in the infrastructure may be largely physical, the impacts on community, neighborhood, and individuals will not necessarily be so. As major highway construction projects have demonstrated, there can be significant impacts on the physical appearance and social character of the community, especially in those neighborhoods that are in, or close to, the path of the construction.

The sociopolitical infrastructure and cultural activities. The final item in this group relates to the second infrastructure of the community.

A community is, in one sense, its people; in another, its physical characteristics; and in still another, the way in which its lives meld in social, cultural, and political activities. In a final sense, therefore, all the impacts of a company ultimately affect the community's social, political, and cultural activities.

These impacts may affect the community as a whole rather evenly or may have different impacts on different neighborhoods; they may affect it through the sheer magnitude of a change in corporate size and the speed with which that occurs. A company may contribute its energies to developing sound new infrastructures and activities to replace the old or decide that such an action is not its right or responsibility. In short, a company may support and strengthen the tangible and intangible aspects of social, cultural, and political life of the community or weaken or ignore them.

Measurement

Two broad approaches to measurement are required to establish the nature and extent of a company's impacts on a community. They make use of (1) techniques that develop information from within the company concern-

ing its policies, actions, and activities and their consequences and (2) special studies and community surveys to gather information outside of the company concerning (a) the company's impacts on those physical, political, and social conditions that are important to the community and (b) the citizens' views and perceptions of the nature and effects of the company's behavior.

Internal sources of information

Internal sources of information may be expected to include the following:

- Statements of corporate policy and procedures for implementing those policies.
- Accounting and financial records showing amounts spent for specific purposes.
- Internal studies of alternatives considered and projects undertaken for increasing positive and reducing negative community impacts.
- Routine or intermittent surveys of participation by executives and employees in community activities, both as private citizens and as company employees.
- Files of the community relations department (or its equivalent) with respect to community/company interactions and activities.

External sources of information

External sources of information would include studies, by company employees or independent firms, of the consequences of selected company activities. For example, they might be undertaken to obtain factual data on the number of families actually displaced by a highway that was needed to reach a new plant facility and the quality of the "before" and "after" living quarters. Or they might attempt to determine the extent to which minority employees holding supervisory positions assumed community leadership roles in the neighborhoods in which they lived.

Citizen surveys would also be important. On one hand, they could be used to obtain factual data of interest to the company—for example, the number of times per week a company-supported playground was used by the children of various types of neighborhood families. On the other hand, they could be employed to develop information about the personal

perceptions of citizens about the company and its behavior, their views of the importance of various present or potential impacts, and their opinions about the acceptability of the company's conduct in various situations.

Community surveys did not originate with the current interest in corporate social responsibility. However, their use has been growing in step with corporate executives' increased interest in community reactions to corporate behavior and government's interest in the strength of citizen satisfactions and dissatisfactions and their reactions to specific government programs. The result has been a further development of survey techniques and instruments, greater skill in interviewing and in interpreting information, greater survey standardization, and greater cooperation among disciplines in survey projects.

Community surveys can be directed to the entire community or to selected groups. Within community or group, they may be random or targeted, or both. But, no matter what the specific method, if surveys are to be useful, they must be so structured as to address the population in a way that will produce the desired information. This is often a complex, expensive process, requiring specialized skills, especially if the information desired is extensive, the subject matter full of subtleties, and the nature of the responses is to be matched with the characteristics of the respondents. When it is desirable to survey the same group over a period of time, complexities and costs will increase. Thus, survey objectives, sizes, and instruments need careful consideration to make them cost-efficient and value-effective.

Multinational corporations

Establishing the community-related impacts of multinational corporations involves problems that are both similar to, and different from, those encountered by purely domestic companies.

In theoretical terms, the social measurement of multinational corporations should present no new problems—all that should need to be done is to extend the bounds of the community. In practical terms, however, the introduction of new cultures is significant. New or differently weighted scales of values, standards of living, social concerns, units of measure, laws, customs, moral codes, and expectations of performance must be taken into account.

What seems to be required is *adaptation* of the methodology described in this book. How to adapt it, however, exceeds by too much the authors' level of knowledge to permit much beyond speculation. Mea-

suring the social performance of a U.S. foreign subsidiary that is only moderately important to its host country would seem to have much in common with doing the same for a branch in the United States, after due allowance has been made for cross-cultural and other societal differences. The measurement of the social performance of a very large, dominant company in terms of its attitudes toward and effects upon the well-being of an *entire* country is, however, quite a different matter, particularly when the host country is small and relatively undeveloped. Chapter 12 contains excerpts from the widely acclaimed Code of Worldwide Business Conduct of the Caterpillar Tractor Company. One certainly could do worse than to develop a schedule of suggested information, using that code as a starting point. Alternatively, use could be made of the code of conduct for international and multinational enterprises adopted by the Organization for Economic Cooperation and Development (OECD) in its June 21, 1976, declaration or such modifications of it as may be adopted by the OECD.

As the news indicates almost daily, however, the responsibilities of companies to host countries—and the reverse—are under active discussion by companies, governments, international organizations, and private citizens. It seems likely that a clearer image of what each believes important will emerge from these discussions.

Plant location and relocation—an example of community measurement

Precisely establishing the nature of a company's interactions with its host community is often a difficult problem. This will become evident from speculating about what would seem to be one of its most complex and impactful actions—the decision to move its operations out of its host community. Of course, "move" is a deceptive characterization, for often there will remain behind (1) an unoccupied plant and associated facilities, (2) the dwellings of transferred employees, (3) former employees themselves (and their families) who were terminated or who declined to be transferred, and (4) a community that was, in some measure, both dependent on and supportive of the company that is leaving.

Whether the move will create a serious problem for the community will depend on the circumstances. If there is a shortage of labor or of factory space, or a new employer moves into the unoccupied space or some similar event occurs, the move may leave the community virtually unaffected, if not better off. At the other extreme, the community may find itself without a new employer, with a vacant plant, with unemployed or underemployed

workers, and with a host of other problems. Since a "worst case" situation will emphasize the social measurement aspects of relocation, these conditions will be assumed to exist in the example given. As will be seen, the impacts that can be created are both positive and negative; in addition, it can be observed that there are actions that the moving company can take to partially mitigate the impacts that its relocation would otherwise have.

The closing of a plant of substantial size will normally result in the following important impacts.

Impacts of a positive nature

- Reduction in environmental damages.
- Reduction in requirements for community services.

Impacts of a negative nature

- Reduction in revenues from taxes on corporate assets, sales and profits, and from taxes on the earnings of employees and other sources.
- Loss of leadership, participation, and financial support for community organizations.
- Damage to the community's image and the image of other companies in the community in their own eyes and the eyes of others.
- General value reductions for homes and real estate.
- Loss of business by local companies.
- Loss of employment opportunities or of opportunities at full-skill levels.
- Negative psychosociological impacts on employees, their families, neighbors, and others arising from unemployment and underemployment.

Actions with mitigating effects

- Severance pay.
- Unemployment insurance (to extent contributed by company).
- Employee transfer policies and payments.
- Announcement policies, gradual withdrawals, attempts to attract other companies.
- Donation or sale of plant to the community on a "bargain" basis.

The new host community will be affected in ways that approach a mirror image of the impacts on the former host community. The loss of employment opportunities in one community will be offset, at least in part, by

new employment opportunities in the other. The reduction in community services will be offset by the increased requirements needed in the new community. The effect on community morale will be both positive and negative. And in a broader sense, since the move presumably was made, in part at least, for economic reasons, there will be socioeconomic gains for the broader consuming and investing communities. And so it will go throughout the list, whether the move is from a city to a suburb, or from an inner city to a country town, or from a community in the United States to one in a less-developed, or even a well-developed, country.

The effect of a plant location/relocation is, thus, from a social point of view, one of measures and balances. The factors are essentially the same on both sides of the equation, even though the amounts or degrees differ. Many of the factors can be estimated with reasonable accuracy—often in financial terms. Others, such as the impact on the environment, can be measured, at least in part, in the kinds of physical terms discussed in earlier chapters. Finally, the sociopsychological factors, although not usually quantifiable, must be examined and described. Given the diversity of units and the inherent problems of measurement, the ideal answer—a net numerical position—will be beyond reach. The combination of quantifiable and nonquantifiable information that can be produced can, however, be expected to be useful.

Community Reporting

If the necessary social measurements of corporate citizenship can be and have been appropriately made, the preparation of a report to a community should not, in theory, be particularly difficult. The total impacts of the company would be assigned to the various communities it affects in such a way that the total of the individual impacts allocated among all communities would equal the total impacts created.

The term community, as has been pointed out, can be defined in various ways. For most kinds of community reports, the governmental or political subdivision (the town or city) will be the most appropriate definition. However, at times, a smaller subdivision such as a neighborhood, or a larger area such as a metropolitan region, will be better. Often when a contribution is made to a national or international organization, its assignment to a large number of small communities may be without meaning, and it may be necessary to create a "national" or "international" community to account for it.

Frequently, benefits may be derived by one community at the expense of another—a consolidating report would show both the positive and negative effects on the two communities and the net consequence to society.

Community reporting probably will increase in the future, expanding from reports on individual matters that are the results of public pressures or legal requirements to reports that are voluntary and cover a wide variety of subjects.

Intercommunity reporting

In mid-1975, a report was issued by the Midwest Research Institute, entitled "Quality of Life in the U.S. Metropolitan Areas—1970." This report followed an earlier one, entitled "The Quality of Life in the U.S. —1970: Index, Rating and Statistics," which attempted to measure and compare the fifty states. Its method is of interest in the measurement of both single and multiple communities.

The 1975 report measures and compares the 243 Standard Metropolitan Statistical Areas (SMSAs)—a set of areas with defined geographical limits used for statistical purposes by the Census Bureau, many government departments, and private companies. It does so by means of the following process:

1. It allocates each area or SMSA to one of three categories—large, medium, or small.
2. It obtains or modifies statistical data for each of the 123 factors shown in Exhibit 9-2. These factors were chosen to "reflect the essential physical inputs and the general concerns of our QOL (quality of life)."
3. It rates each SMSA separately for each of the 123 factors, using a five-step scale ranging from "outstanding" to "substandard," with comparative judgments being made only within each SMSA group.
4. Individual factors then are weighted *equally* to produce subcategory, subcomponent, and component scores.
5. Finally, "for satisfaction of the general curiosity about overall QOL variations, composite indexes are developed," also weighting the five components *equally.*

The report, which appropriately notes the value problems associated with equal weightings and other weighting schemes, is interesting and

worth attention. It is an illustration of the strengths and weaknesses of constructing overall indexes (single units) for widely diverse subject areas and of developing indexes for more closely allied indicators—a subject that is discussed in Appendix 2. It shows the value of comparisons in the absence of absolute standards. Finally, and of more immediate importance from the standpoint of this chapter, it provides a list of factors considered to be of importance in measuring the condition of a community—many of which factors are affected, at least in part, by the actions of companies.

Exhibit 9–1

Suggested Information on the Community

General Area and Specific Attribute	Specific Information	Sources of Information or Evidence
1. Corporate citizenship		
a. Character espousal	a. Statement of goals for community and of corporate policy with respect to them Activities in support of these goals	a. Corporate policy statements; internal and external statements of key officials in support of community goals; actions and activities taken; community survey
b. Participation in community service and quality of life activities	b. Contributions in cash, in kind, and in time—amounts and purposes Leadership roles; other assistance	b. Normal records of corporation or its foundation Survey of management and key employees; personnel and community relations department records; officer/board membership in major community organizations; community survey
c. Organizational example	c. Performance with respect to such matters as the following: • Law abidingness and concern for the rights of others • Aesthetics • Concern for operational impacts • Respect for government and governmental processes • Participation in public debate; behavior in the face of opposition	c. Statements of corporate policy; evidences in the form of actions taken with respect to corporate interfaces with the community; community survey; expert opinions
d. Participation in social mini-programs	d. Extent of participation in or management of major programs, of a type often carried out or sponsored by the government, as part of	d. Records and reports relating to the specific activities prepared by project or program management

	the company's efforts to help to solve societal problems essentially unrelated to its business operations, e.g., activities relating to low-cost housing, child care, drug addiction, leisure activities, and senior citizens	
2. Operations-related policies and activities		
a. Plant location and relocation	a. See example in text of chapter 9	a. Payroll and personnel records, accounting records, special studies of terminated employees, and community surveys
b. Employee-related effects arising out of —Income and stability —The physical and psychological conditions of work —Facilitation of work —Opportunity for employment and promotion	b. Nature of impacts made on community life by the company's employment practices	b. Community surveys; special studies by experts in community dynamics
c. Utilization of local vendors	c. Purchases from local vendors	c. Accounting and purchasing department records
d. Impact on physical environment	d. See chapter 4	d. See chapter 4
e. Impact on physical infrastructure (e.g., roads, waste disposal facilities, water supply, land use, etc.)	e. Extent of demands placed on the physical infrastructure; special public actions required; attempts to mitigate adverse effects and create greater benefits	e. Special studies; community surveys
f. Impact on sociopolitical infrastructure and cultural activities	f. Extent of demands placed on social and political infrastructures, especially those requiring substantial change; attempts to mitigate adverse effects and create greater benefits	f. Special studies; community surveys
	Nature and extent of support of cultural affairs	Special studies

Exhibit 9–2

Factors in Quality-of-Life Components

PANEL 1. FACTORS IN ECONOMIC COMPONENT

Factor Effect	*Factors*
	I. Individual Economic Well-Being
+	A. Personal income per capita ($)
	B. Wealth
+	1. Savings per capita ($)
+	2. Ratio of total property income to total personal income
+	3. Percent of owner-occupied housing units
+	4. Percent of households with one or more automobiles
+	5. Median value, owner-occupied, single family housing units ($1,000)
	II. Community Economic Health
+	A. Percent of families with income above poverty level
−	B. Degree of economic concentration, absolute value
	C. Productivity
+	1. Value added per worker in manufacturing ($1,000)
+	2. Value of construction per worker ($1,000)
+	3. Sales per employee in retail trade ($1,000)
+	4. Sales per employee in wholesale trade ($1,000)
+	5. Sales per employee in selected services ($1,000)
+	D. Total bank deposits per capita ($)
	E. Income inequality index
−	1. Central city and suburban income distribution
−	2. Percent of families with incomes below poverty level or greater than $15,000
−	F. Unemployment rate
+	G. Number of full-time Chamber of Commerce employees per 100,000 population

PANEL 2. FACTORS IN POLITICAL COMPONENT

Factor Effect	*Factors*
	I. Individual Activities
	A. Informed citizenry
+	1. Local Sunday newspaper circulation per 1,000 population
+	2. Percent of occupied housing units with TV available
+	3. Local radio stations per 1,000 population
+	B. Political activity participation—ratio of Presidential vote cast to voting age population

Factor Effect	*Factors*
	II. Local Government Factors
	A. Professionalism
+	1. Average monthly earnings of full-time teachers ($)
+	2. Average monthly earnings of other full-time employees ($)
+	3. Entrance salary of patrolmen ($)
+	4. Entrance salary of firemen ($)
+	5. Total municipal employment per 1,000 population
+	6. Police protection employment per 1,000 population
+	7. Fire protection employment per 1,000 population
+	8. Insured unemployment rates under state, federal, and ex-servicemen's programs
	B. Performance
−	1. Violent crime rate per 100,000 population
−	2. Property crime rate per 100,000 population
+	3. Local government revenue per capita
+	4. Percent of revenue from federal government
+	5. Community health index
+	6. Community education index
	C. Welfare assistance
+	1. Per capita local government expenditures on public welfare ($)
+	2. Average monthly retiree benefits ($)
+	3. Average monthly payments to families with dependent children ($)
	PANEL 3. FACTORS IN ENVIRONMENTAL COMPONENT
	I. Individual and Institutional Environment
	A. Air pollution index
−	1. Mean level for total suspended particulates ($\mu g/m^3$)
−	2. Mean level for sulfur dioxide ($\mu g/m^3$)
	B. Visual pollution
−	1. Mean annual inversion frequency
−	2. Percent of housing units dilapidated
+	3. Acres of parks and recreational areas per 1,000 population
	C. Noise
−	1. Population density in the central city of the SMSA, persons per square mile
−	2. Motor vehicle registrations per 1,000 population
−	3. Motorcycle registrations per 1,000 population

Exhibit 9–2 (cont'd)

PANEL 3. FACTORS IN ENVIRONMENTAL COMPONENT (cont'd)

Factor Effect	*Factors*
	I. Individual and Institutional Environment (cont'd)
–	D. Tons of solid waste generated by manufacturing per million dollars value added
–	E. Water pollution index
	II. Natural Environment
	A. Climatological data
–	1. Mean annual inversion frequency
+	2. Possible annual sunshine days
–	3. Number of days with thunderstorms occurring
–	4. Number of days with temperature of 90° and above
–	5. Number of days with temperature of 32° and below
	B. Recreation areas and facilities
+	1. Acres of parks and recreational areas per 1,000 population
+	2. Miles of trails per 100,000 population

PANEL 4. FACTORS IN HEALTH AND EDUCATION COMPONENT

Factor Effect	*Factors*
	I. Individual Conditions
	A. Health
–	1. Infant mortality rate per 1,000 live births
–	2. Death rate per 1,000 population
	B. Education
+	1. Median school years completed by persons 25 years old and over
+	2. Percent of persons 25 years and over, who completed 4 years of high school or more
–	3. Percent of males ages 16 to 21 who are not high school graduates
+	4. Percent of population ages 3 to 34 enrolled in schools
	II. Community Conditions
	A. Medical care availability and accessibility
+	1. Number of dentists per 100,000 population
+	2. Number of hospital beds per 100,000 population
+	3. Hospital occupancy rates
+	4. Number of physicians per 100,000 population
+	5. Per capita local government expenditures on health

Factor Effect	*Factors*
	II. Community Conditions (cont'd)
	B. Educational attainment
+	1. Per capita local government expenditures on education
+	2. Percent of persons 25 years old and over who completed 4 years of college or more

PANEL 5. FACTORS IN SOCIAL COMPONENT

Factor Effect	*Factors*
	I. Individual Development
	A. Existing opportunity for self-support
+	1. Labor force participation rate
+	2. Percent of labor force employed
+	3. Mean income per family member ($)
+	4. Percent of children under 18 years living with both parents
–	5. Percent of married couples without own household
+	6. Individual education index
	B. Promoting maximum development of individual capabilities
+	1. Per capita local government expenditures on education ($)
+	2. Percent of persons 25 years old and over who completed 4 years of high school or more
	3. Persons ages 16 to 64 with less than 15 years of school but with vocational training
+	a. Percent of males
+	b. Percent of females
+	4. Individual health index
	C. Widening opportunity for individual choice
	1. Mobility
+	a. Motor vehicle registrations per 1,000 population
+	b. Motorcycle registrations per 1,000 population
+	c. Percent of households with one or more automobiles
	2. Information
+	a. Local Sunday newspaper circulation per 1,000 population
+	b. Percent of occupied housing units with TV available
+	c. Local radio stations per 1,000 population

Exhibit 9–2 (cont'd)

PANEL 5. FACTORS IN SOCIAL COMPONENT (cont'd)

Factor Effect	*Factors*
	I. Individual Development (cont'd)
	C. Widening opportunity for individual choice (cont'd)
	3. Spatial extension
−	a. Population density in SMSA, persons per square mile
−	b. Percent of population under 5 and 65+ living in central city
+	4. Individual equality index
+	5. Individual and institutional environment index
	II. Individual Equality
	A. Race
+	1. Ratio of Negro to total persons median family income adjusted for education
+	2. Ratio of Negro to total persons in professional employment adjusted for education
−	3. Ratio of Negro males to total males unemployment rate adjusted for education, absolute value
−	4. Ratio of Negro females to total females unemployment rate adjusted for education, absolute value
	B. Sex
−	1. Ratio of male to female unemployment rate adjusted for education, absolute value
−	2. Ratio of male to female professional employment adjusted for education, absolute value
	C. Spatial
−	1. Percent working outside county of residence
−	2. Income inequality index—central city and suburban income distribution, absolute value
−	3. Housing segregation index, absolute value
	III. Community Living Conditions
	A. General conditions
+	1. Percent of families with income above poverty level
+	2. Percent of occupied housing units with plumbing facilities
−	3. Percent of occupied housing units with 1.01 or more persons per room
+	4. Percent of occupied housing units with a telephone available
+	5. Percent of workers who use public transportation to work

Exhibit 9–2 (cont'd)

Factor Effect	*Factors*
	III. Community Living Conditions (cont'd)
	A. General conditions (cont'd)
–	6. Total crime rate per 100,000 population
–	7. Cost of living index
	B. Facilities
	1. Recreational facilities
+	a. Number of swimming pools per 100,000 population
+	b. Number of camping sites per 100,000 population
+	c. Number of tennis courts per 100,000 population
+	d. Miles of trails per 100,000 population
+	2. Number of banks and savings and loan associations per 1,000 population
+	3. Number of retail trade establishments per 1,000 population
+	4. Number of selected service establishments per 1,000 population
+	5. Number of hospital beds per 100,000 population
+	6. Volumes of books in the main public library per 1,000 population
	C. Other social conditions
–	1. Death rate per 1,000 population
–	2. Birth rate per 1,000 population
+	3. Sports events in the metropolitan area
	4. Cultural events in the metropolitan area
+	a. Dance, drama, and music events
+	b. Cultural institutions
+	c. Fairs and festivals held
+	5. Community health and education index
+	6. Natural environment index

SOURCE: Midwest Research Institute, "Quality of Life in the U.S. Metropolitan Areas—1970" (Midwest Research Institute, 1971).

ten | Lessons From the Government

Relevance of Governmental Experience

Every business action has both its economic and social impacts. Normally, the principal impacts are economic; the social impacts of business actions arise directly out of the marginal effects of essentially economic transactions or as the unavoidable or unavoided side effects of such transactions. For this reason, the number and diversity of the social impacts of business are subtle and pervasive.

Every government action also creates both economic and social impacts. However, the primary objective of most government actions is the achievement of results that usually are described as "social." Agencies and programs are brought into being to create a single or small group of impacts on a mammoth scale. It is reasonable to expect that these government units will have learned or are trying to learn a great deal about cause-and-effect relationships and measurement techniques, problems, and solutions associated with the social areas that are their concern. Since many of these areas are also affected by the impacts of business actions, the knowledge developed by government should be useful to business in showing the way to practical social measurement and in indicating the problems, weaknesses, and limitations involved. For that reason, some "lessons" from the experience of government may be illuminating.

Governmental Judgments of Social Value

By virtue of the responsibilities assigned to it, the government constantly judges the value of social alternatives and the effectiveness of different

courses of action in achieving social goals. It does this primarily in the following fashion:

1. It decides, as the result of budgetary and legislative processes, on (a) the levels at which and the purposes for which expenditures will be made and (b) the total and proportionate amounts of taxes and other charges that will be levied on different groups of people and items (for example, income, property, and sales) to finance them.
2. It determines the specific goals and objectives to be sought through governmental intervention and the specific actions to be taken in specific programs and activities.
3. It establishes laws, rules, and regulations to govern the conduct of business, nonprofit institutions, private individuals, and governmental units.
4. It decides how the government, as one of the major organized entities in society, will conduct itself in relation to its employees, the community, and the citizenry.

Some of these judgments take form as governmental budgets, tax laws, and similar evidences of governmental policies. Others appear as income redistributions or as activities and programs that the government carries out or grants funds to others to carry out. Others emerge as rules and regulations imposed on business, individuals, and institutions and the actions of commissions, courts, and others involved in enforcement. Still others are contained in the internal policies and procedures (on government employment, for example) by which the government conducts its own operations.

In terms closer to the heart of social measurement, the judgments, choices, selections, and evaluations of results made by governments are, within the framework of the basic political process concerned with—

- Identifying cause/effect or action/impact relationships as they affect various publics, constituencies, and social conditions.
- Establishing at least the direction and approximate strengths of the relationships of actions, impacts, and results.
- Establishing the relative value of different types of programs or of different kinds and levels of regulation, when they affect different publics and constituencies.
- Determining the behavior patterns that result from various levels of expenditure or regulation.

- Identifying and obtaining information essential for planning, monitoring, and controlling government actions and impacts.

One should not be so naive as to assume that, just because the sums are large and the consequences great, the exceedingly difficult problems of measurement will disappear. Nor should one expect or want measurements to influence excessively the political process by which values are articulated, legislated, and adjudicated.

Our interest in governmental processes lies in the nature and types of measurements customarily used to provide useful information to those who must plan, determine, carry out, and evaluate government activities. We shall, therefore, look at selected examples of how the government copes with certain aspects of social measurement. Most of the material presented deals with government-administered or -executed programs and the regulatory process, for they seem to provide the most useful insights for our purposes.

Most of what follows is based on limited research of published information, available from a variety of sources both within and outside the government. It is by no means a comprehensive view nor does it represent standard government practice; wide variations exist among, and even within, departments, agencies, and programs.

Most of the comments are based on selected experiences involving (1) program-planning-budgeting systems and the budgeting process in general, (2) evaluation and, more recently, experimentation in the Department of Health, Education and Welfare and other agencies that deal with a variety of social programs, (3) regulation as practiced by such agencies as the Environmental Protection Agency, the Occupational Safety and Health Administration, the Food and Drug Administration, and the major consumer-oriented agencies, (4) auditing efforts, particularly those identified with the "Yellow Book," *Standards for Audit of Governmental Organizations, Programs, Activities, and Functions* (U.S. General Accounting Office), and (5) evaluation efforts at municipality levels.

The Social Measurement of Governmental Programs and Activities

The following comments will be divided into two parts—the first will deal with social measurement objectives; the second will deal with methods and some of the problems encountered in their application.

Objectives

The federal government's present objectives in social measurement are substantially more ambitious than those the authors suggest for business. Briefly, the government's major aim is to predict and then to determine the effectiveness and efficiency of its efforts to maintain or improve social conditions. The present aim of most corporate social measurement is to indicate the nature and extent of a company's actions and their immediate consequences. Future developments in business social measurement will be in the direction of the federal government's present objectives, but substantial organizational and methodological breakthroughs will be necessary if they are to be accomplished.

The federal government's aims are more ambitious, obviously because their primary purpose is to develop and carry out programs and activities that will maintain or improve social conditions and thereby maintain or enhance the quality of life of the country's citizens. Many billions of dollars, amounting to a major portion of the U.S. gross national product, are spent in providing federal services; in providing funds so that lower-level governments, nonprofit institutions, and businesses can provide desired services; or in directly or indirectly increasing the funds that may be spent, with some restrictions, by selected groups of individuals.

Measurement methods

The federal government's aims are often ahead of their implementation because of both temporary, and what probably will be permanent, difficulties. Some good work has been done, and some important and interesting conclusions seem to be emerging. The authors' interpretations of what is occurring in certain areas will be discussed in the following sections.

Utility of measurements of social conditions. There seems to be a consensus that attempts to measure the effectiveness of government programs and other forms of intervention in terms of the quality of life characteristics set forth in chapter 2, Exhibit 2-2, are not very useful. One can usefully obtain individuals' perceptions of their degree of satisfaction or dissatisfaction with aspects of life and some hard evidence of it (such as suicide rates). Even then, however, a way must be found to relate this information to activities that governments carry out. This seems to be very hard to do except in relatively general terms. Thus, the better approach is to consider that the government's role is to assist in creating so-

cial conditions in which a superior quality of life is apt to be achieved and to develop information useful for advancing those conditions.

Social measurements as indicators. Whether it is feasible to determine the government's impact on social conditions depends in part on how those conditions are described. If the conditions are described in very broad, general terms, there will be relatively few social conditions for which this objective can be attained. Establishing how specific programs affect such *overall* conditions can rarely be practicable, for each "overall condition" will be found to be made up of a number of "subsidiary conditions" or attributes. The only practical way that the overall conditions can be measured is to subdivide them into component conditions and attributes and to select certain of these subsidiary conditions, characteristics, or attributes as *indicative* of the whole.

Thus, social measurements are often measurements of indicators. This obviously creates uncertainty about whether the indicators are representative of the whole—a problem not easily resolved. The best one can do is to attempt to show logically and empirically that there is a significant correlation and that the indicators are thus "important," "relevant," or "representative" of the whole. (See the discussion on an initial system, chapter 2.)

The same argument applies at lower levels of government social measurement, where most measurement efforts are directed at determining whether the objectives of a particular *program* have been achieved. The chain from program objective (measured by an indicator) to social condition (measured by another indicator) to quality of life (either unmeasured or measured in terms of perceptions) is long and uncertain. And if the chain is from activity within program, to program objective, to social condition, to quality of life (each with its own indicator), it becomes still longer and more complex.

Social measurements, as they are performed under governmental auspices, are selective in the same way that every indicator description they contain is selective; whether they are properly descriptive depends on the validity of selected indicators.

Social measurements of end products or results achieved. Governmental social measurers have a low opinion of those who would use measures of effort or of immediate, or process, outputs as indicative of results achieved. They point out that there often is little evidence that increased spending on a given program will produce increased results or that, given

two programs with the same objective, spending twice as much on one program as on the other will produce greater results. Government officials say, in fact, that to assume that inputs are directly and positively correlated with outputs is to completely ignore the issue of allocating resources in the most productive manner—which is one of the most difficult and important functions of government. They point to the number of programs that have been greatly altered or even terminated after large expenditures were made because they were later deemed to be unproductive or even counterproductive.

In governmental circles, input measures such as man-hours or dollars are thought to be the least useful. Intermediate or process output measures (classes held, pupils taught, and degrees granted) are considered to be somewhat better but incomplete. Obviously the problem is that these are not measures of results but rather of conditions that are expected to *produce* results; they can mislead unless there is a proven, factual relationship between them and the results they are said to represent. Input and process output measures are accepted as being useful for internal managerial purposes, particularly as they relate to productivity. However, they would not be accepted, any more than other surrogates or proxy measures, as indicative of the real results achieved.

Business social measurements, it should be noted, will often, at least initially, be limited to inputs and process outputs rather than ultimate results. As has been pointed out in earlier chapters, this seems unavoidable under present circumstances, in spite of concerns that parallel those expressed by government officials. The justification for using such measures is (1) that other measurements are not available and (2) that these measures do provide some useful information about a company's social performance.

A single unit of measurement is impossible. Although limited use has been made of a single unit of measurement (the dollar) in certain agencies and departments (for example, in studies connected with rivers and harbors, highways and selected other physical projects), the feasibility and desirability of a single unit of measurement have been largely rejected by the federal establishment. There is some acceptance of the *principle* of expressing all measures in terms of dollars, but there are enough quarrels with the resulting figures to make one wonder whether rejection in practice is not tantamount to rejection in principle.

The use of a single unit is being rejected despite a clear awareness of the value it would have. The lack of a single unit makes the aggregation and disaggregation of data contrived or virtually impossible; it limits the

possibility of discounting in order to show time preferences; it makes direct comparisons of cost and benefits impracticable and limits cost/effectiveness comparisons unless the benefits are virtually identical; it obviously must result in multiple units of measurement that do not resemble apples and oranges so much as a wide assortment of fruits.

There are two important reasons why multiple units are, nevertheless, the usual alternative. First, the results of using a single unit often appear artificial and contrived, resulting in extensive arguments over the facts, opinions, and methods employed by the measurer. Second, and far more important, there is a strong belief that the single unit conceals the values and calculations that went into the measurement and usurps the value judgments that should be made, in the open, by planners, administrators, and others who use the measurement reports. Those who have studied measurement in government often point out that there is no national consensus of values; that, even if there were one, it would be changing and not uniform for people of all ages, races, sexes, and beliefs; and that values that might reflect the personal beliefs, professional biases, and constituency pressures felt by the social measurer might well be different from those of the individuals who will be using his judgments. These commentators are by no means so naive as to ignore the imperfections of the executive and legislative democratic processes, but they consider them to be preferable to the dangers inherent in the hidden values attached to the single unit.

One particularly intriguing example of what can be involved when a single unit expressed in dollars is employed relates to the value to be assigned to a human life that might be lost or saved within various program circumstances. One actual computation includes only the present value of the earnings lost (using a discount rate of 6 percent). Another includes not only wage losses (at a different income level and a 7 percent rate of discount) but also substantial additional amounts to compensate for losses due to pain and suffering and the unavailability of the deceased's services to community, home, and family. Other computations used for other purposes include still other items or are determined on the basis of different assumptions and different data. In a single-unit calculation, the values and the assumptions underlying them could be determined only by reference to underlying detail.

Social measurement theory is easier than its application. The practical application of social measurement is a good deal more difficult than the development of theories or concepts of measurement. This conclusion is due, in part, to the attempt to focus on end products or results. It is also

due, however, to some of the inherent problems of social measurement, some of which are exceptionally pronounced in government. Some of the more troublesome or interesting impediments are the following:

- The nature, objectives, and method of operation of the program or activity are often not clearly described. This situation apparently arises on some occasions when, "for political reasons," the specifics were deliberately left unclear. Often, however, it occurs in the more hastily developed and experimental programs, because the specific objectives either are not, or cannot be, fully identified and agreed upon when the programs are initiated. Also the overall goals of programs or the emphasis placed on individual priorities change over time without formal restatement or, perhaps, even formal agreement on what the new program objectives are to be.
- Attempts to determine results frequently require "before and after" measurements of a sample of the population or of a social condition affected by the program. They may also entail using a control group not affected by the program. Many practical difficulties are encountered in identifying a representative sample, in obtaining a control group similar to the program-affected group, and in coping with the loss of contact with group members over a period of time. In addition, severe problems can arise in obtaining measurements of the "before" situation, especially if the need for data was not recognized or time was not available to obtain it before the program began to have its effect.
- Some of the data may not be complete or accurate. There are real problems in obtaining good objective and subjective data. The collectors of subjective data, in particular, run into serious difficulties with word meanings, definitions, and perceptions, especially when the measurers and the measured have different cultural and educational backgrounds. Often the results are too narrowly defined and leave out important impacts on program participants and on those who are not in the program but are affected positively or negatively by the actions of others who are (the second- or third-order effects). Often the only data collected are those that are the easiest to collect; often there is a failure to determine "client" reaction; on other occasions, input or direct outputs are used as evidence of results.
- Where many units are carrying out a program under different external conditions, with different internal capabilities (financial, managerial, and so forth), it often is difficult to distinguish between the results

or lack of results that should be attributed to these factors or to the intrinsic worth of the program.

- There is a real problem of failing to see what is occurring as a result of excessive averaging—treating the group affected as though it were homogeneous rather than made up of quite different constituencies being affected quite differently.
- Many of the programs and activities are permitted to exist through renewal funding only if they produce quick results. Many of the results, however, may be long-term, and there may well be some delay before they become perceptible. Thus, the funding and activity phases and the result phase are out of step politically unless the measurer can forecast results accurately and extensively and/or present his case persuasively.
- Many program managers have not learned to incorporate the measurement of results into their managerial systems. They tend to be oriented toward financial control and productivity. This is due, in part, to the fact that the organizational units they manage conceive of themselves as people and resources (inputs) producing services (intermediate outputs) and, in part, to the fact that neither the managers nor those responsible for them know quite how to connect these program elements with the final results.
- Often, by definition, programs involve multiple effects. Likewise, they affect people who are subject to multiple influences, often in the same or a related area of program activity. To separate the effects of a single program from the multiplicity of other governmental and private influences—such as would impact upon a child in a ghetto—is virtually impossible despite the availability of data, high speed computers, and sophisticated statistical techniques.
- There are important problems for maintaining quality in data collection —problems that arise from inadequate local instruction, overall staff training and supervision and from misuse or failure of technical instruments.

Measurement problems in government, although perhaps more evident because of the government's highly visible need for this information and the greater experience of government officials in attempting to obtain it, are far from being resolved. Although considerable progress can be expected, there will always be important technical, economic, ethical, and political problems that will limit what can be achieved.

Social measurement at the level of the municipality

The federal government renders some services directly to the public: those provided by the national parks, the Tennessee Valley Authority, certain financial institutions, farm agencies, and Veterans Administration hospitals might be considered typical. Municipal government, on the other hand, is concerned *primarily* with providing direct services. Because of this and the fact that considerable material has been developed by the Urban Institute, working on its own or in conjunction with the International City Managers Association, we will discuss the social measurement of directly provided services at the municipal level. *Measuring the Effectiveness of Basic Municipal Services* (Washington, D.C.: The Urban Institute, 1974) has been our primary reference document, although we recognize that its suggested methods or their equivalents will be found to be in actual use infrequently at present. This document is publicly available, and the approach it outlines resembles in some respects that being suggested for corporate social measurement in this book. Both similarities and differences of import will be noted.

The suggested municipal measurement system has the following characteristics:

1. It aims at measuring the effectiveness with which the goals and objectives of the service are being met and warns against confusing the statistics for input, work load, and efficiency with measurements of program effectiveness.

2. It follows the "indicator approach" discussed in connection with program measurement by the federal government. As can be seen from the excerpts included as Exhibit 10-1, it starts with program objectives (not with quality of life objectives), and presents them in the manner in which they might appear in a statement of desirable social conditions. The overall objective of "satisfactory" transportation, for example, is defined in terms of various attributes—clearly not all the attributes or descriptors, but those considered most important and relevant. The attributes are further defined in terms of indicative quality characteristics for which specific indicative measures are listed. The extent to which the specific measures appropriately indicate the whole—the overall objective—is crucial; it depends on whether there is an appropriate relationship, whether a significant relationship is omitted, and other similar factors.

3. As the excerpts show, no attempt has been made to express all measures in terms of a single unit, nor to weigh the importance of the individual characteristics in relation to the attributes or of the attributes in relation to the overall objective. As the study report states, this was avoided because the weights assigned would represent the value judgments of the analysts or would be subject to excessive change with differences in conditions.

4. The data to be collected are often presumed to be available because they are needed for operational and administrative purposes. On other occasions, however, additional information will need to be developed. In a number of instances (totaling about one-third of all the measures included in the book), citizen surveys will be required. Such surveys will be directed primarily toward citizen perceptions, experiences and feelings about the quantity and quality of services offered, reasons for nonuse, and the attitudes and performance of municipal departments and employees. By subclassifying the demographic information, the responses can be analyzed by constituencies as well as in total.

5. In addition to such physical services as solid waste collection and disposal, recreation, police and fire protection, and transportation, the report covers measurements relating to the handling of citizen complaints and requests for service and information.

A person measuring corporate social performance will be interested in the suggestions contained in the Urban Institute/ICMA report for two rather different reasons. The first lies in the use of "indicators" and the practical approach taken to selecting measures and collecting data. The second arises because many of the services rendered by municipalities are needed because of what businesses do. Collecting and disposing of solid waste, for example, well may include collecting and disposing of the solid waste arising from manufacturing operations. In addition, the arrival or departure or expansion or contraction of a company, or other major changes in its manufacturing, marketing, or administration may force considerable changes in the quantity and quality of the municipal services required in its locale. In fact, the attributes of the objective, the quality characteristics, and the specific measures suggested in the Urban Institute/ICMA report often seem to be a direct reflection of the impacts that companies make on municipal services and on the citizens of the community.

Regulation

The regulation of business and nonprofit institutions, and even of the operations of government itself, is primarily concerned with the attainment of social objectives. In fact, regulation consists of (1) the establishment of "fair rules of the game," (2) constraints against undesirable practices, and (3) financial or other incentives and penalties to promote desirable actions or inhibit undesirable ones.

In the course of establishing rules and regulations that are sufficiently precise to provide understandable and enforceable standards, legislators and regulators presumably need to establish (1) the ultimate objectives of the regulation, (2) the relevance to those objectives of the actions being prescribed or proscribed, (3) the extent to which different levels of constraint or achievement contribute to attaining those objectives, (4) the relative cost of the different levels of achievement, and (5) the proper trade-offs and, thus, the levels of performances that should be sought.

Under ideal conditions, actual, imputed, or subjectively determined measurements and values would be used to establish these rules, constraints, and incentives. Of course, under more realistic conditions, theory and practice might differ for a variety of reasons. First, some of the regulations might have been established in earlier eras or on the basis of substantial pressures, giving undue emphasis to one point of view. Second, the objectives might not have been clear or their desired attainment levels might have been vague. Third, the logical connection between the regulation and the objective might not have been established or might remain unclear in the midst of multiple causes and effects. And finally, the value of achieving the objectives or the effects might not have been established for lack of effort, appropriate techniques, or consensus, and there might have been a misleading comparison with the estimated costs.

Many governmentally established standards can be expected to become the bench marks against which corporate performance is measured in systems of corporate social measurement. This is particularly evident in such areas as—

- Employment—discrimination, compensation
- Safety—working conditions, building design, product characteristics
- Environmental impacts—and use

In practice, government standards are the most authoritative standards against which corporate measurements are compared. They are mandated by publicly available, legally enforceable rules and regulations that have been established independent of the individual company or industry.

Regulations are not an unmitigated blessing to the corporate social measurer (or to the company), however, for a variety of reasons. Regulations established by different governmental agencies at either the same or different levels of government may set contradictory requirements. This may occur because of jurisdictional conflicts or because the focus of interest of one agency causes it to impose requirements with respect to its field of interest which cannot be met for technical, political, or other reasons without violating another set of requirements relating to the field of interest of another agency. Regulations also tend to be unstable, since those who promulgate them change their ideas with (1) experience, (2) improvements in measurement and production technology, (3) increased understanding of the processes being regulated and the nature and extent of their consequences, and (4) political pressures. Regulations requiring "best available" technology or the like may be difficult to apply, for the appropriate technology to solve a particular plant's problems may be too expensive, too difficult to identify, not really yet available, or not quite effective. In addition, the vigor of enforcement may indicate the attitude of the regulators themselves about the appropriateness of their regulations; many regulatory standards fall into disuse as a result of doubts about their validity when the standards should, in reality, be altered or repealed. Finally, as will be discussed subsequently, standards may inadequately consider the costs and benefits involved and, in fact, be unrealistic until adjusted.

These reservations diminish the value of regulatory standards to the corporate social measurer; however, regulatory standards are still one of the most valuable of the available tools or sources of comparisons.

Regulations as Social Value Indicators

Underlying most regulations are values and judgments that, if evident, would assist corporate social measurement in a variety of ways. For example, the standards set for product safety, employee safety, highway safety, and so forth, imply a value that could be attached to life, health, freedom from physical impairments, and freedom from the fear or risk of injury or death. Equally, environmental standards imply values that could be attached to specific physical and psychological characteristics of the environment.

Until relatively recently, most of the widely applicable standards were set at levels that aimed at eliminating the undesirable practices of a rela-

tively small portion of the employers, manufacturers, and marketers in the country. A broadly based consensus existed that justified these standards or supported the logic on which such essentially minimum standards were based.

In the past few years, standards have been established at very much higher levels, exceeding in a number of important instances (such as those relating to employee safety and the environment) those previously reached by even the best performers in business or industry. Many of these higher standards have been promulgated by new agencies, of which the Environmental Protection Agency, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, the Mining Enforcement and Safety Commission and the Consumer Product Safety Commission are typical. In addition, however, standards have been established at higher levels by older agencies—the Federal Power Commission, the Food and Drug Administration, and the National Highway Traffic Safety Administration—as these agencies have responded to the same forces that brought their newer counterparts into existence. Achieving the new, higher level of standards is often difficult and considerably more expensive. Increasingly, arguments are emerging about both the cost and the value of expectations of what is to be achieved and the social philosophies underlying the standards. The earlier basis of consensus is now less prominent, and there is considerably more questioning of particular standards. A desire for cost/benefit determinations is appearing along with challenges to the speed and level of achievement required.

If the regulatory process is carried out in good faith, there is considerable opportunity for open participation by the interested parties. Except when crises occur, there appear to be substantial efforts by the government and substantial opportunities for business to provide technical, social, and economic information with respect to the standards under consideration. Obviously, ample room exists for professional bias, legislative intent, judgments of technical capabilities, social objectives, and economic consequences to clash, and they often do. In a real sense, though, the final decision is the result of the political/administrative process at work.

Standards established by regulations frequently are intended to reflect what is technically practicable (usually defined in terms of state-of-the-art design) and economically feasible, except when more stringent criteria are established legislatively or judicially. (The Occupational Safety and Health Act of 1970 illustrates the more stringent criteria when it directs, with regard to toxic materials, that OSHA "shall set the standard which most adequately assures, to the extent feasible, on the basis of the best available evidence, that *no* employee will suffer material impairment

of health or functional capacity even if such employee has regular exposure for the period of his working life".)

Technical or operational feasibility can be argued, as it frequently is, in terms of whether the process or technology is actually operational or whether it will reach the standard, or both. The well-publicized argument over the effectiveness of scrubbers in reducing power plant pollution is one of many on that point. Likewise, there can be problems in the installation of a particular technology (such as for reducing pollution) as part of a larger, preexisting process and thus a need for reasonable alternatives.

The stronger and less technical arguments seem to involve social desirability and economic feasibility, perhaps because regulators and businessmen tend to have different emotional and philosophical views on social and economic values (which is likely), or the social costs and values are never expressed economically (which is also likely), or the underlying political, philosophical, and emotional premises are not discussed or agreed upon (which is the most likely of all). Or perhaps it is because the regulator tends to look on economic feasibility as essentially the relationship between social benefits and economic costs (with relatively little attention being paid to the viability of the plant, the product, or the business); whereas, businessmen think of economic feasibility, at least initially and perhaps essentially, in terms of the viability of the business itself. Perhaps, also, business considers cost, productivity, employment, and so forth, to be "social" to a greater extent than does the regulatory community. Whatever the reasons, many of the arguments have appeared in the past to be less than conclusive. However, the more recent questioning of costs and standards by business and some members of government may bring about a change in that condition.

In part, the problem must lie with the inadequacies of social measurement. To be sure, not all problems can be accounted for in this fashion, for there are important ethical and political issues involved. Nevertheless, it is clear that, given their present state of development, the processes of social measurement are unable to produce either a comprehensive set of social costs and benefits or an indication of their work expressed in either social or economic terms that can be compared to their economic cost. This is not said critically. As we have said repeatedly, social measurement is difficult. The situation should, however, give pause to those who feel the problems can be easily overcome in a business environment. It should support those who believe that most business measurements will have to relate to social conditions and that value judgments based on the clues provided by various indicators will be required absent a neat social equivalent for return on investment.

Exhibit 10–1

Summary of Principal Measures of Effectiveness for General Transportation (Vehicular and Pedestrian)[1]

OVERALL OBJECTIVE: Provide and maintain a street and sidewalk network that will promote *convenient, safe, quick,* and *comfortable* vehicular and pedestrian travel, with minimum harmful effects on the *environment.*

Objective	Quality Characteristic	Specific Measure	Data-Collection Procedure
Vehicular Travel			
Rapid Movement	Travel Times	1. Peak and off-peak travel times between key representative origins and destinations.	Timed runs on selected routes, preferably several times a year to reflect seasonal fluctuations.
	Severity of Congestion	2. Ratio of peak travel time to off-peak travel time (between selected pairs of points).	Timed runs (off-peak and peak) between selected points in congested areas or on major routes. Off-peak time may be defined as the time to travel between the points at the legal speed limit, obeying all traffic laws.
	Duration of Congestion	3. Length of time that peak travel times are "x" percent above off-peak times.	Same as above.
Safety	Frequency of Accidents	4. Number of traffic accidents and the rate per 1,000 population.	Available from police and insurance company records. Other versions of interest for analysis include: the accident rate per thousand drivers, per 1,000 vehicle-miles, and per 1,000 passenger-miles. Also the rate per 1,000 daily average pop. (Including

			nonresident workers and visitors, if available, would better reflect the population.)
	Casualties From Accidents	5. Number of deaths and number of injuries from traffic accidents per 1,000 population.	Same as above.
	Property Losses From Accidents	6. Dollar property loss from traffic accidents, and loss per capita.	Same as above. Constant dollars should preferably be used for comparisons over time.
	Preventability of Accidents	7. Percentage of accidents involving a contributing factor influenceable by a specific city agency (e.g., potholes, signal malfunction, view obstruction) —classified by city agency of concern.	Analysis of data from accident reports. May require improved reports or trained investigators at sample of accidents.[2] (Procedure remains to be tested.)
	Feeling of Security in Driving	8. Percentage of drivers who feel driving conditions are generally safe/unsafe.	Survey of representative sample of drivers.[3] Factors of most concern to those feeling unsafe should also be solicited as well as information on the geographical areas where concern is felt.
Safety (also Convenience & Fairness)	Traffic Law Enforcement Adequacy	9. Percentage of citizens who feel, based on their personal experience, that traffic law enforcement is too strict/about right/too lax.	Citizen survey of a representative sample of drivers or citizens in general.[3]

[1] This table covers only intracity transportation, other than public transit (which is included in another table).

[2] This measure presents potential problems in interpretation and legal involvement of the city, unless ground rules and definitions for making the necessary classifications are carefully worked out.

[3] An annual multi-service citizen survey that could be used to collect this data is described in Chapter IV of this report.

Exhibit 10–1 (cont'd)

Objective	Quality Characteristic	Specific Measure	Data-Collection Procedure
Comfort	Street Surface Condition—Government Ratings	10. Percentage of streets with surface rated as excellent/good/fair/poor/dangerous.[4]	Systematic visual inspection of a representative sample of streets, perhaps supplemented by a "bumpiness" measuring instrument such as a roughometer. Measures for several seasons are desirable.
	Street Surface Condition—Citizen Ratings	11. Percentage of citizens rating street surfaces in their neighborhood as satisfactory/unsatisfactory.	General citizen survey of a representative sample of drivers/passengers.[3]
Convenience [5]	Parking Convenience	12. Percentage of drivers who feel that finding a parking space is usually/sometimes/infrequently a problem.	Survey of a representative sample of drivers.[3] Detail by area, time of day, day of week, type of parking could also be obtained.
	Understandability of Traffic Controls and Signs	13. Percentage of drivers rating the understandability and visibility of (a) traffic signs (regulatory and advisory), (b) street markings, and (c) street name signs, as satisfactory/unsatisfactory.[6]	Survey of a representative sample of drivers (as can be obtained from a general citizen survey).[3] A survey of visitor driver perceptions may also be of interest. Note that "visibility" includes obstructions to signs, and convenience of placement, as well as adequacy of the graphics.
	Lane Blockages—Driver Perceptions	14. Percentage of drivers who feel they are frequently/infrequently inconvenienced by blocked lanes.	Survey of a representative sample of drivers.[3] Could be supplemented by data collected from agencies on "number of blocked lane days due to construction or repair work."

Environmental Quality	Air Pollution	**15.** Air pollutant levels attributable to transportation sources and number of persons possibly exposed to hazardous levels. **16.** Percentage of citizens bothered by polluted air in their neighborhood frequently/occasionally/rarely.	Can be estimated using systematically gathered air samples throughout the city, combined with population density maps, e.g., based on census data. Survey of a representative sample of citizens.[3] Where problems are reported, air sampling may be needed to determine the source (transportation or stationary sources).
Environmental Soundness	Noise Pollution	**17.** Percentage of street miles with traffic noise above/not above "x" decibels—by residential/non-residential areas, and by type of street.	Measured using A-weighted noise meter along the more heavily traveled streets by time of day and day of week, and reason. Alternatively, can be estimated using approach outlined in HUD's *Noise Assessment Guidelines,* T. J. Schultz and N. M. McMahan, U.S. Government Printing Office, 1971.

[4] The street surface rating levels might be defined as follows: *Dangerous*—Street surface with a major safety hazard to drivers going at speed limit (e.g., wide, deep pothole); *Poor*—Surface with minor safety hazard, potentially damaging to some vehicles, or with extremely bumpy, poorly shaped surface causing major discomfort; *Fair*—No safety hazard, but considerably uncomfortable to ride over in spots or all over; *Good*—Only minor bumps or cracks, good configuration, no significant discomfort to ride on; *Excellent*—Perfect surface condition, no repairs needed, no discomfort. The ratings might also be defined using a photographic rating system. Note that engineering ratings commonly used in many communities emphasize the magnitude and priority of ratings needed; they may or may not give the same impression as the user-oriented rating above. For example, a street with a dangerous pothole is often not rated "poor" on engineering ratings if a simple patch will suffice.

[5] The measures listed attempt to reflect various specific aspects of driver convenience. But a satisfactory measure of the overall convenience in driving about the jurisdiction remains to be identified.

[6] Trained observer rating of the understandability and visibility of traffic signs and signals markings may be a useful additional or substitute measure if the ratings are based on well-defined criteria that have been correlated with citizen perceptions. The trained observers might then conduct surveys of all or a sample of streets by day and by night at least once a year.

Exhibit 10–1 (cont'd)

Objective	Quality Characteristic	Specific Measure	Data-Collection Procedure
Environmental Soundness (cont'd)		18. Percentage of citizens bothered by traffic noise in their neighborhood frequently/occasionally/rarely.	Survey of a representative sample of citizens.[3]
Pedestrian Travel Convenience/Safety	Sidewalk Availability	19. Percentage of residents who feel there are adequate/inadequate sidewalks (a) on their block, (b) in their neighborhood.	Same as above.
	Sidewalk Condition	20. Percentage of blocks in satisfactory/unsatisfactory condition.	Inspection by a trained observer using a photographic or other well-defined rating system. An alternative or supplementary rating of sidewalk conditions might be obtained by citizen survey.[3]
	Adequacy of Street Lighting	21. Percentage of residents who feel street lighting in their neighborhood is insufficient/about right/too bright.[7]	Survey of representative sample of citizens.[3]
	Adequacy of Traffic Controls	22. Percentage of citizens who, as pedestrians, feel that there are too many/too few/about right amount of walk/don't walk controls at intersections.	Survey of representative sample of citizens.[3]

Convenience/Safety (cont'd) Safety	Pedestrian Casualties	23. Number of traffic accidents involving pedestrian casualties per 1,000 population.	Statistics kept by most police departments. Accidents at controlled intersections, uncontrolled intersections, and mid-street or road should be reported separately. The rate per 1,000 average daily population should be considered.
	Feeling of Safety	24. Percentage of citizens who feel there is relatively low/high danger to pedestrians (especially children or the elderly) from traffic in their neighborhood.	Survey of representative sample of citizens.[3]

[7] If after study, these citizen ratings appear highly correlated with standard measurements of light intensity, the latter could be substituted as the measure.

SOURCE: The Urban Institute and the City Management Association, *Measuring the Effectiveness of Basic Municipal Services: Initial Report, February 1974* (Washington, D.C.: Urban Institute, 1974), pp. 61–66.

Part three

Part 3 is concerned with the different uses of social information. Chapter 11 discusses the kinds of information that will be useful for management in its internal activities and suggests that there is far more to be gained from integrating social and economic information than from treating them as essentially unrelated. Chapter 12 deals with external disclosures. Its companion, chapter 13, is concerned with problems of credibility and the opportunities to overcome these problems through attestation and other actions. This chapter concludes that there is little likelihood of providing a "short-form opinion" on the results of the initial system and suggests what the contents of a "long-form" report might be. Chapter 14, the last of the chapters of part 3, deals with organizational and other practical problems of making the initial system operational.

eleven | Using Social Information Internally

The time and effort required to produce, analyze, and effectively use social information will not be inconsequential. Social information will, therefore, have to justify its existence on the same basis as all other types of information—its value to those, within and outside of the company, who will use it. A sufficiently strong case can be made for certain social information to warrant its production based solely on external values. However, for purposes of this chapter, the focus will be on how social information can be used internally in managing a company.

For social information to be of value internally, it must help executives to manage the affairs of their company significantly better than they could if it were not available to them. This requires not only that the information be relevant to management's actions and available when and where needed, but also that it actually influence what management does to some significant extent. The fundamental thesis set forth in this chapter is that this will be most likely to occur when the following conditions are met:

1. Information on social and financial impacts is sufficiently integrated so that both are considered as consequences of specific company actions.
2. Social information supports the needs of the dominant phases of the management cycle to plan, execute, evaluate, and control the operation of the company as an integrated whole.

This chapter assumes that, while compromises will be inevitable, they will bend rather than break the fundamental thesis set forth above.

The first condition is important because both social and economic impacts do, in fact, arise together from business actions, with the most important social impacts arising out of the company's mainstream activities. The second condition has significance because the management cycle is

useful, logical, and well ingrained in corporate practice. If social information is to be given consideration, it must be within the normal management cycle. It may be difficult to get executives to use social information in making policy and operational decisions even when such information is present. To treat social information as something that can be considered at a different time and place increases the possibility that it will receive little attention and that business actions will be treated as though they had only economic consequences.

The management cycle

The management cycle can be described as consisting of the following general activities:

1. Setting the company's overall goals.
2. Establishing specific objectives of an economic and social nature and making plans and decisions for accomplishing them.
3. Communicating plans and delegating responsibility for carrying them out.
4. Reviewing results and evaluating and rewarding the performance of those principally responsible for them.
5. Deciding whether to change goals, plans, actions, or people.

The management cycle occurs in several contexts—when considering long-range plans or short-term budgets, when reaching decisions about new or special projects, and when dealing with specific problems and changes relating to mere routine affairs. The steps of the management cycle will be used as the framework for the discussion in this chapter.

Setting Overall Goals

The first step in the management process is to establish the broad, continuing goals and objectives of the company. At one time, this process would have been construed by most companies to be roughly the equivalent of setting economic goals and objectives. Of late, establishing social goals and objectives (or, at least, social constraints) has become more

important for various reasons: the desire to be in a leadership role with respect to social progress, the avoidance of community or government displeasure, compliance with existing laws and regulations, and the avoidance of any more. In an ongoing company, establishing goals occurs through (1) major re-examinations (usually undertaken in periods of crisis), (2) routine periodic reviews aimed at incremental changes, and (3) the more or less unquestioned continuation of policies and practices.

Most companies can articulate their basic economic goals in general terms. A small but growing number can also articulate them in greater detail and more concrete fashion—especially those companies that make serious efforts at long- and short-range planning and at project and capital expenditure evaluation. A considerably smaller group can specifically set forth long- and short-run *social* objectives, and even fewer can state both economic and social goals in an integrated manner.

In most instances, a company's social goals are not explicitly stated. Rather, they exist in tradition and tacit understanding or are implied by the company's operating plans and practices. There are occasions, however, when these goals have been committed to writing; and in some cases, this was done well before the present interest in corporate social responsibility. Recently, statements of corporate purpose, sometimes given the label of "credo," have become more numerous. With increasing frequency they encompass both social and economic objectives. More often than not, they or shortened versions of them are intended, or are suitable, for public distribution.

An example of such a credo is contained in a pamphlet setting forth the "Corporate Responsibility of General Mills, Inc." It begins with an introductory section that reads as follows:

> As a major corporation enjoying the rights and responsibilities of the American free enterprise system, General Mills believes its existence and success depend upon the competitive excellence, value and satisfaction we consistently provide consumers through goods and services. Our objective of serving the wants and needs of the consumer guides our day-to-day decisions and is consistent with our obligations to shareholders, employees and society. In our view, profits measure and reward effective and efficient performance in meeting consumer wants and needs. Through profits, we thus satisfy our obligation to shareholders and implement the growth of the corporation, thereby assuring a dynamic, challenging environment for employees. We also gain the means to discharge our broader responsibilities to society. Following are policy guidelines by which managers set their course in day-to-day operations. . . .

The company then sets forth its policies with relation to—

Product quality, nutrition, product safety, and packaging and labeling.
Advertising, premiums, and consumer promotions.
Consumer sensitivity and correspondence.
Consumer education.
Compliance with the law.
Employment and employee safety.
Contributions and participation in public affairs.
Ecology.

The level of detail of the credo can be seen from the following three examples:

> Product Safety—General Mills will at all times meet, and where appropriate, exceed minimum safety standards for products as set forth by the various local, state and federal laws and regulatory agencies. Further, all concerned divisions, subsidiaries and staff departments will be alert to developing technology that signals potential hazards and will take immediate, positive steps to ensure consumer safety.
>
> Packaging and Labeling—General Mills packaging will be designed to protect the product and meet consumer needs with recognition of environmental requirements. Package labels will be designed to truthfully inform the consumer.
>
> Compliance with the Law—General Mills will operate in a manner conforming both to the spirit and the letter of all laws and regulations affecting its business. The company views such legal requirements as setting the minimum acceptable standard of performance. In areas of consumer concern, General Mills will continue where possible to operate in accordance with guidelines and policies that are more stringent than existing laws and regulations.

Such a general statement of corporate social philosophy and the one developed by Caterpillar Tractor Co. for its worldwide operations (which appears in part in chapter 12) do not by themselves produce the plans and decisions and assignments of responsibility necessary for implementation. They state the rationale and support for current management plans and decisions and provide the basis for development of more detailed statements of social objectives for specific functions and organizational units. To the extent that these statements deal with economic as well as social matters, they help to articulate an integrated set of detailed socio-economic goals.

Most general statements of corporate social objectives do not impose substantial requirements for social information. They usually deal with the general nature of the company's objectives rather than with specific levels or rates of accomplishment and their costs. In order to develop a credo, special studies may sometimes be needed to identify and estimate the impacts of long-term social trends, to provide whatever additional information is required about essentially routine matters, and to assist in making major policy determinations (for example, criteria for product acceptability, undesirable investment opportunities, or the implications of accepting a leadership role in social affairs). By and large, however, these additional requirements will be rather small.

Many believe that a company's broad goals are most apt to be sound in the long run when its economic and social objectives are in reasonable harmony—when economic goals recognize social constraints and social objectives recognize economic realities. This, we believe, is most likely to occur when an attempt is made to establish both sets of objectives in an integrated fashion and when information about both economic and social objectives and their interrelationships is made available to those who must set these goals.

Establishing Specific Objectives and Plans

The second step in the management process requires that the company's broad goals and objectives be translated into specific policies, procedures, and plans on the basis of which specific actions can be taken. This involves such formal processes as long-range planning and short-term budgeting, project appraisals and capital expenditure evaluations, policy statements and established procedures, and various types of special studies, as well as a number of less formal decision-making activities.

Ideally, the process of establishing specific objectives and plans would proceed with the help of (1) an information system providing management with a statement of all the economic and social consequences of its past and prospective actions and (2) evaluation methods that would assure that these consequences would be taken into account in a way that would assure the choice of a close-to-optimum course of action. However, even with the great efforts that have been made to provide financial and economic data and comprehensive and sophisticated procedures for evaluating economic consequences, few would be completely happy with what has been accomplished in that field. As is by now evident, determining

and dealing with the social consequences of the same actions are considerably less developed arts.

Nevertheless, progress in dealing with social consequences will depend on the development of (1) information about social consequences that can be used in decision-making and (2) decision-making procedures and models that take both economic and social consequences into account.

In spite of the fact that such integrated decision-making is in its early stages of development, the types of information that would be most useful can be identified. These would include the following:

1. Status reports, describing the company's performance in areas of major concern to society and the principal corporate activities relating to these areas. (Such reports would provide information about major opportunities and problems, evaluations of corporate performance, and bench marks for gauging progress or retrogression.)
2. Studies of the cost/efficiency/benefits of alternative actions with respect to ongoing operations, products, policies, and practices.
3. Studies of the socioeconomic consequences of proposed new products, capital investments, research and development projects, and other major expenditures of a course-setting nature. (The options are different in this instance from those in item 2 because little or no money will have yet been committed.)
4. Forecasts of the economic and social results that could be expected from a particular plan.
5. More general information as to social and political trends, prevailing regulations, present and anticipated actions of other companies, public reactions, and so forth.

The fact that both economic and social consequences flow from the same actions makes it necessary to consider both in concert. This, in turn, warrants the integration of social and economic information in a single reporting format to the extent feasible.

The types of data listed above are familiar to business executives, at least in an economic context. An indication of the kinds of social information that could be provided is contained in the set of reports appearing at the end of this chapter. Those that would be most useful in terms of what has been discussed thus far are the following.

Social Performance Status Report (Exhibit 11-1). This report could be arranged to set forth information about social performance, primarily in

relation to the nature of the impacts on social conditions and, to a lesser extent, the publics affected by them. Such a report could be prepared for the company as a whole or for important organizational units. It could cover all or one or more areas of significant social concern, reporting on them in narrative and quantitative form in whatever combination was most appropriate. It would, no doubt, contain comparisons with internal operational data and with external information sources, to the extent that they were available and appropriate. Plans and proposed plans, as well as actual results, could be covered.

Such a report would be prepared in the degree of summary or detail most appropriate for its recipients. Thus, the particular format used would vary with the nature of the area, the kinds of information available, and the needs of the users. A format with general utility would include some or all of the following: a description of current status, comparisons with prior status and plans and with other internal and external evidence of performance, comparisons with regulatory requirements, desired performance or improvements over a specified future period, the costs, benefits, and effectiveness of alternative approaches and of the one selected or recommended.

The frequency of the report would vary with the needs of the users, the rapidity with which the situation was changing, the urgency of company action, the cost of preparing the report, and similar factors. An important element of a set of such reports might be a highlight evaluation, made by one of the top executives, concerning a limited number of factors deemed to be of critical importance by the management. Exhibit 11-9 gives a rough idea of one approach. It would be highly judgmental in many respects, with continuing and transitory items. It would help to capture executive attention and both conserve executive time and direct it to the most important areas. (The items listed in Exhibit 11-1 are those that might be included in a comprehensive report or set of reports. A more detailed indication of the information that might be furnished with respect to many of these items is set forth in chapters 4–9, particularly in the exhibit tables at the ends of these chapters.)

Social Performance Status Report by Major Corporate Activity (Exhibit 11-2). This report is similar in basic objectives to Exhibit 11-1, but arranged so as to relate impacts to the corporate activity that created them. Such a report could cover all or selected activities, all or selected organizational units, and in other ways be made more or less comprehensive. Its frequency would be governed largely by the factors discussed in connection with Exhibit 11-1.

Special Study—Consequences of Package Redesign (Exhibit 11-3). This report illustrates how the social and economic consequences of a potential or actual action might be presented in a single, integrated report. Such a report might be prepared when the company's present packaging practices were under study, either because a general review seemed desirable or because a proposed new design was under consideration.

Special Study—Participation in Community Day Care Center (Exhibit 11-4). This report illustrates the type of information that might be useful in dealing with the company's participation in a community project that is largely, if not wholly, public service oriented. Such a report normally would be prepared periodically to match the review cycle established for managerial purposes or when a substantial change in the scale of the company's participation was under consideration. Interim management reviews of a less intensive nature would require less extensive but updated information. In a sense, both would constitute reports that are sometimes referred to as "process audits."

Special Study—New Product Evaluation Report (Exhibit 11-5). This report would indicate how the economic and social aspects of a new product could be presented in a single integrated document. Such a report might be prepared when the introduction of a major or new product or product line (or the major modification of an existing one) was under consideration. In suitably altered fashion, it would also be useful when an existing product or product line was being reevaluated.

Communication and Delegation

The third step in the managerial process involves the communication of final plans and decisions and the assignment of responsibility for achieving results. (To simplify this description, tentative plans, which often originate at middle or lower management levels with or without benefit of goals set by senior management, will not be treated as a distinct part of the process.)

Plans for social performance may be communicated in several ways. One approach is to include both social and economic objectives in the same budget that is transmitted to individual organizational units. In this way,

social goals—whether expressed as the specific, positive goals or operational constraints of the unit—cease to be regarded as unassigned concerns and become specific responsibilities delegated to identified departments and individuals. This approach also serves to identify the cost consequences associated with achieving a set of social goals with the organizational unit required to make the expenditures. Exhibit 11-6 illustrates how this might be accomplished at the department level. Those familiar with budgeting procedures and feedback reporting can visualize how it would work at higher or lower organizational levels.

A second approach is to couple a Management by Objectives (MBO) statement, derived from an MBO process, with the financial budget. (Exhibit 11-7 gives an idea of what might be involved in that instance.) The main advantage of such an approach is that the less rigid format of an MBO statement makes it easier to include descriptive and detailed information than does a conventional budget statement. The disadvantage is that the separation of the two kinds of information may lessen the attention given to the social objectives unless the MBO statement is so designed as to integrate social objectives with their economic counterparts.

A third approach is to accompany the approval of a specific action with the explicit requirement that both the social and economic consequences of an action be considered commitments, to be enforced by separate but unavoidable management procedures. This could occur, for example, when an authorization to purchase new capital equipment was made contingent upon representations about both the economic and social consequences of the purchase and the establishment of organizational commitments to achievement of both sets of results. A procedure for determining, by means of a post-auditing procedure, that the promised results had been attained would serve to integrate the two elements in the planning stage even if each aspect were audited separately.

Obviously, it will usually be next to impossible for department or division managers or staff executives to determine the ultimate social consequences of their actions on the quality of life of those affected. Instead, these managers will be concerned with effects on important social conditions. In fact, the responsibilities of most lower-level managers will probably be expressed in terms of efforts, constraints, and actions in order to be consistent with their level of responsibility. Efforts, constraints, and actions will seem more concrete and clear and will more accurately reflect what is and is not under the managers' control. It will be up to top and middle management to see that the actions of all levels of managers are in harmony with overall objectives and plans.

Reviewing Results and Evaluating Performance

The managerial processes involved in reviewing results and evaluating performance are so familiar to the typical executive that little explanation seems to be required. For the most part, the information required will come from one or more of the sources or types of information previously described:

- Social status report (routine) (Exhibit 11-1)
- Special study of progress in a given area or as the result of given action (e.g., suitable adaptations of Exhibits 11-2, 3, 4, 5, and 8)
- Routine socioeconomic, budget-related reports (Exhibit 11-6)
- Routine MBO reports (Exhibit 11-7)
- Reports to governmental agencies with respect to employment, safety, pollution, and other matters
- Follow-up audits with respect to specific capital- and project-related expenditure authorizations

Evaluating and Rewarding Executive Performance

It is often said that managers will take social performance seriously when it begins to affect their promotions and pocketbooks. In a few companies, this has begun to happen, having either a fairly direct relationship to, or being an additional factor in, bonus determinations and salary reviews.

The chances are strong that performance with respect to matters of social concern will increasingly become part of personnel evaluations. Even though opportunities for individual managers to contribute to a company's social performance will differ according to the nature of their departments' functions, this circumstance will be no different from that existing with respect to other factors that affect executive appraisals.

Organizational Arrangements

In virtually every company, social information is at present without a home or is lodged in several homes. First attempts to make social audits or compile comprehensive information about corporate social performance

have often been assigned to ad hoc groups, or to public affairs departments with enlarged responsibilities. Relatively new groups have also been established; they usually are intended to be permanent and carry such labels as corporate social responsibility departments, headed by a director who may or may not have major executive status. On other occasions, depending on the nature of the social information sought, departments with primary responsibility for matters relating to employee relations or marketing have assumed the responsibility for the production, if not the use, of specific social data. On still other occasions, special internal study groups have been established to handle specific projects, or outside organizations have been employed.

Such approaches pose obvious long-term problems. If social and economic information are to be integrated, both will have to meet demanding time schedules. Additionally, providing regular and comprehensive social data can hardly be considered as a permanent responsibility when assigned to temporary groups. Finally, if data are to be assembled with a consistency of outlook and controls, a fairly high level of common direction and control will be necessary.

Several strong arguments can be made for assigning a major role to the present financial department, assuming appropriate adjustments can be made in personnel capabilities and attitudes. The financial department has the experience, the discipline, and the data processing capabilities to accumulate data under control or to make use of data accumulated by others under what it deems to be satisfactory controls. It already processes the financial information with which social information should ideally be integrated. Finally, since it is not as involved with the areas of social concern as are other departments, it can function as an independent "scorekeeper."

Under this arrangement, a social responsibility department and the various operating departments would, as they do for financial information, supply much of the original data and use the completed information. It would leave to the financial department (or some other newly established department) the clerical functions of controlling, reviewing, processing, summarizing, and presenting the data unless the work involved was small or was needed immediately for operational reasons.

Effectively using social information in management councils and initiating actions must be the responsibility of the chief executive officer and his key executives. For this to occur, however, more than a chief executive's general concern with social results is needed. Especially at this stage, senior executive should be asked by the chief executive to make sure that social information is considered, understood, and used. A likely candidate

would be the head of the corporate responsibility department or the chairman of the committee on social responsibility, if that individual is an officer or executive likely to be present when important company decisions are made. If not, the chief financial officer should be considered for such a role, especially if he is interested in social as well as economic matters. Such a role could be filled by the head of a financial department whose function is officially defined to encompass both social and economic responsibilities, whose range of skills is adequate and whose personal interest qualifies him for the position. The probable presence of the chief financial officer during important meetings, the orientations of other officers toward their specific functional interests, and the inability of the chief executive officer to take on detailed responsibilities of this nature all support this argument.

As can be gathered from the preceding paragraph, the appointment of one or more committees bearing the titles, Committee on Social Responsibility, Committee on Public Policy, or the like has become an increasingly common occurrence in recent years. At times, these are managerial committees, chaired by an officer or department head, charged with corporate, divisional, or more limited areas of responsibility. In addition, a number of board committees have been designated, normally chaired and largely or completely filled with directors who are not employed by the company, with the probable exception of the company executive assigned the responsibility of heading the internal, executive-level social responsibility committee.

Exhibit 11–1

Social Performance Status Report

Exhibit 11-1 (cont'd)

Social Performance Status Report (cont'd)

Exhibit 11–2

Social Performance Status Report by Major Corporate Activity

Table of Contents	*Part*
Product Range and Design	1
Customers; markets served and not served	
Value, effectiveness, durability, serviceability, etc.	
Safety	
Material use, recycling, solid waste disposal, etc.	
Manufacturing	2
Employment specifications and practices, including those affecting minorities and women	
Employee safety, working conditions, job satisfactions	
Material utilization, recycling	
Environmental issues	
Energy requirements	
Plant location/relocation	
Impact on community, etc.	
Marketing, Advertising, and Promotion (details)	3
Financing, Credit, and Collection (details)	4
Additional Activities	Additional parts, as needed

Exhibit 11–3

Special Study—Consequences of Package Redesign

Exhibit 11–4

Special Study—Participation in Community Day Care Center

Exhibit 11–5

Special Study—New Product Evaluation Report

Exhibit 11–6

Financial and Social Budget
Departmental Budget

Department_____ Period_____

	Current Month		*Year-to-Date*	
Expenditures	*Budget and/or Standard*	*Actual*	*Budget and/or Standard*	*Actual*
(Usual list of expenditures)				
Financial performance				

Other objectives:
- Employment
  - Minority—Percent of force
  - Female—Percent of force
  - Over grade C—Minority percent
  - Over grade C—Female percent
  - Training hours
  - Average noise level
  - Accident days lost
- Productivity improvement—percent
- Recycled material used—tons
- Energy use reduction—KWH
- Product quality rating

Exhibit 11–7

Management by Objectives

Department_____ Period_____

Departmental Objectives

1. Financial
   - Budgetary performance
   - Productivity improvement of X%
     - Project A
     - Project B
     - Other efforts
2. Organizational
   - Improvement of work environment
     - Physical improvements
     - Psychological improvements
   - Minority and female employment
     - Increase proportion of total to Z%
     - Increase proportion in executive positions to Y%
   - Safety
     - Reduction in accidents and accident severity by X%
     - Special attention to process 3
   - On-the-job and other employee training
3. Resource Utilization
   - Reduction in energy consumption by W%
   - Use of V% recycled materials
   - Reduction of quality-related rejects to U%
4. Others

Exhibit 11–8

Special Report—Consumer Responsiveness Survey

Exhibit 11–9

Socioeconomic Goal Statement—Most Critical Factors Report

Goal or Activity Areas	*Measure*	*Weight*	*Priority*	*Level of Performance*	
				Sought	*Achieved*
1. Efficient use or resources	Return on investment				
2. Growth	Sales increase in constant dollars				
3. Productivity improvement	Output per employee				
4. Minority employment	Number/%				
5. Minority/female occupancy of executive positions	Number/%				
6. Stability of employment	Layoff days				
7. Reduction in water pollution	Quantity and content of effluents				
8. Product safety	Selected categories of accident claims				
9. Community noise reduction	Decibel "emissions"				
10. Improvement in operation of day-care center	Parent satisfaction				

twelve | External Reporting

The Audiences

The primary audiences for social information are identified in chapter 1:

- Sociological and economic theoreticians
- Social commentators, activists, and public interest groups
- The government
- Present and prospective employees, suppliers, customers, and others with an economic relationship with the company
- The community
- Investors and owners
- Corporate executives

Each of these groups, it was noted, has its own reasons for desiring social information. While in many respects they have common interests, each has special requirements or desires reflecting particular orientations that determine the subjects, the degree of report detail, and the technical level of information in which they are interested. Generally, all information needs will *not* be satisfied by a single report. This is a well-established fact of financial reporting, where the variety of information needs results in annual reports to stockholders, periodic reports to the Securities and Exchange Commission and other securities regulators, tax returns, Federal Trade Commission reports, renegotiation reports, and many special reports to special audiences. The same situation will exist with respect to social information.

Some of those seeking social information themselves have the means to develop, or require that their organizations develop, the information they desire. For instance, the federal government is able to legislate information requirements; public interest groups often have considerable research capabilities; and private parties, such as newspaper reporters, have their own ways of acquiring information. There are even occasional examples of rather comprehensive external social reports in which extensive information is developed about a company by an organization not having direct or authorized access to the company's own data. However,

the emphasis in this book is on the social information that a company itself can and should report.

Much of the information that a company prepares for internal use will not be suitable for disclosure to the general public in the form in which it is used internally. Accordingly, if social information is to be properly communicated to external audiences, a company must decide not only what is to be communicated but also how to reach those it wishes to inform. Undoubtedly it will conclude that, in many instances, general purpose external reporting will be desirable but that, in other instances, special purpose reports will be necessary. Finally, the company may conclude that, in some cases, it would prefer to rely on the fact that a third party —perhaps a newspaper reporter or representative of the broadcast media —will, through press conferences, find the company's activities of sufficient interest to report on.

Most companies find it necessary or desirable to use more than one method of communication to reach the various audiences they wish to inform. In so doing, they choose one or more of the following:

Separate specially prepared social reports

Stockholder magazines

Employee newsletters or other in-house publications given wide circulation inside and selective distribution outside the company

Advertisements, press releases, press interviews

Special, legally required reports to the government that become publicly available under freedom of information acts and other regulations, or are submitted in public hearings, court cases, and so forth

Special reports to selected audiences

Oral reports at stockholders meetings, symposia, and community conferences

Annual reports to stockholders

SEC filings

Comments about these methods appear in the following section.

Separate Social Reports

The separate social report is perhaps the most effective method currently in use for social reporting. By using a separate report, a company can describe its major social actions and impacts at one time and in one place

without regard for report length or space restrictions. Such reports may cover as many as one hundred pages, as does the General Motors Corporation's annual "Report on Progress in Areas of Public Concern," but most are considerably shorter. These reports normally comment on corporate policy in matters where there is a direct interface between the company and society; they frequently cover the current status and the past and the anticipated effects of specific actions that the company has taken or plans to undertake.

A representative selection of topics that might be included in a comprehensive special report can be found in the table of contents of Union Carbide's *Profile, Special Report: Social Progress* (December 1974):

Engineering a Better Environment
  An ecological view of plant design
  "In house" custody of the environment
  Reclaiming the land

Foreign Investment Is a Two-Way Street
  Corporate citizenship study under way

Southern Africa: Progress and Goals
  A positive force for black progress
  An equitable employment policy
  Raising job responsibility levels

Energy: Development Goes With Conservation
  Significant energy savings made

The Next Inspector Is the Customer

Moving Ahead: New Opportunities for Both Women and Minority Employees
  Helping to prepare tomorrow's job candidates

Prescriptions for Employee and Customer Health and Safety
  Possible health hazards carefully monitored

The Many Faces of Responsiveness

The *Social Progress Report of The Quaker Oats Company 1974–1975* (November 15, 1974) provides another example of the topics of a special report.

Introduction

Special Programs
  Social progress assembly
  Minority politics

The learning exchange
Problems of children
Legal elections and anti-vote fraud
Community impact
Leaves for public service
Three-for-one matching gifts to education
Nutrition education
Concerned business student study
PUSH agreement
Civic affairs
Tutoring

Consumerism
National Advertising Review Board
Children's advertising
Children's programming guidelines to media buyers
Support to public television
Minority advertising
Toy safety
Open dating and nutritional labeling
Quaker urges end of premium advertising

Energy and the Environment
Public policy

Safety

Minority Economic Development

Employment Opportunities for Women

Education

Youth Programs

Health Care

The Community and the Bank (1975) is of interest as the special report of the Bank of America, which is a service organization with few of the physical operations associated with the manufacture and distribution of products. This report, the latest development in a process of disclosure that started in 1970, covers the following topics in its twelve pages:

Part One—1974 Highlights
Disclosure
Community issues
Consumer issues
Employee issues
Environmental issues

Part Two—Ongoing Programs
- Urban activities
- Volunteer activities
- Agricultural activities
- Equal opportunity
- Educational activities
- Skills development
- Contributions and grants
- Corporate responsibility bibliography

Part Three—Organizational Structure
- Social policy department
- Public policy committee—Board
- Social policy committee—Internal
- BAIMCO corporate responsibility analyst (investment analysis)
- Urban affairs department

In these separate social reports, the tone is usually serious and the reporting objective; at times, these documents are relatively scientific and technical. They typically do not attempt to sustain the "public relations" rhetoric that often is found in the relatively few sentences or paragraphs of a president's message in an annual report to stockholders. Separate social reports also tend to be more balanced, often describing some of the company's detrimental effects on society as well as its "good work."

One variation of special social report limits the material to a statement of corporate philosophy or "credo" without an attempt to relate it to current social performance. The following excerpts from "A Code of Worldwide Business Conduct," published by the Caterpillar Tractor Company (October 1, 1974), are examples of this type of special report:

> *Ownership and Investment.* We affirm that Caterpillar investment must be compatible with social and economic priorities of host countries. . . . In turn, we are entitled to ask that such countries give careful consideration to our need for stability, business success and growth. . . .
>
> *Corporate Facilities.* We desire to build functional, safe, attractive plants, offices and warehouses to the same high standards worldwide. . . . Facilities are to be located so as to complement public planning and be compatible with local environment considerations. . . .
>
> *Relations With Employees.* We aspire to a single, worldwide standard of fair treatment of employees. . . .
>
> *Product Quality.* The pursuit of product quality is not only a matter of providing the best value . . . but also of providing products responsive to the public's desire for lower equipment noise levels, compliance with reasonable emission standards, and safe operating characteristics. . . .

Technology. We locate engineering facilities in accordance with need, and without reference to countries or nationalities involved. . . . We desire to raise the technical capacity of employees and suppliers in all countries in which company facilities are located. . . .

Finance. Our policy is to conduct currency dealings only to the extent they may be necessary to operate the business. . . . and to protect our financial positions in those currencies whose relative values may change in foreign exchange markets. . . .

Intercompany Pricing. Pricing of goods and services transferred within the Caterpillar organization . . . is to be based on ethical business principles consistently applied throughout the enterprise. . . . Prices are not to be influenced by superficial differences in taxation between countries. . . .

Differing Business Practices. There are business differences from country to country . . . which tend to distort and inhibit competition. . . . We favor multilateral action aimed at harmonizing or resolving differences of this nature. . . .

Competitive Conduct. We support laws of all countries which prohibit restraints of trade, unfair practices, or abuses of economic power. And we avoid such practices even in areas of the world where laws do not prohibit them.

Observance of Local Laws. Caterpillar's intentions fall into three parts: (1) to obey the law; (2) to neither obstruct nor defy the law; and (3) to offer, where appropriate, constructive ideas for change in the law. . . .

Business Ethics. Ethical business conduct should normally exist at a level well above the minimum required by law. . . . We intend to hold to a single standard of integrity everywhere. . . .

Public Responsibility. We believe there are three basic categories of social impact by business: (1) the straightforward pursuit of daily business affairs—earning a profit, (2) conducting business affairs in a way that is socially responsible, (3) initiatives beyond our operations, such as helping solve community problems. . . .

International Business. We believe the international exchange of goods and ideas promotes human understanding, and thus harmony and peace. . . . We aim to compete successfully in terms of design, manufacture and sale of our products, not in terms of artificial barriers and incentives. . . .

Special social reports generally are addressed specifically to stockholders, as in the case of the Ford Motor Company booklet, "Ford and Public Concerns: A Special Informational Report to Stockholders." Whether or not they are specifically addressed to the stockholders, however, special reports normally are sent to them as well as to other parties who request them.

In one respect, the difficulty of preparing a special report increases with its volume; however, in another, it decreases. Problems of determining what areas are to be covered and what aspects of them are to be discussed are reduced when space limitations are not a factor; the difficulty of compressing many complex facts and ideas into as few words as possible is lessened; the opportunity to develop in readers an understanding of not only past and present conditions, but also of future plans and policies is increased; and, the ability to transmit enough information so that the user can make his own evaluations is greatly enhanced. Thus, a special report or series of special reports on specific aspects of a company's social performance has many advantages. It would not be surprising to see their number increase.

Stockholder Magazines

Some companies report social information through their stockholders' magazine. Many of the larger companies, such as Exxon and General Electric publish these magazines on a regular basis—usually quarterly—to keep stockholders, employees, and other selected audiences informed about various aspects of the company's activities. At times, the magazine is used to report the proceedings of the stockholders' annual meeting.

Articles on social topics may appear regularly. Or, a company may devote an entire issue to them, which then makes the magazine itself much the same as a separate social report. Usually, when articles on social performance are a regular magazine feature, they tend to be limited to one aspect of company operations; however, when whole issues are concerned with social performance reporting, the coverage is broader. Reports on social matters appearing in stockholder magazines generally are more positive in character than those found in special reports, no doubt reflecting the general public relations character and objectives of most such magazines. Obviously this need not be the case, and, thus, the stockholders' report can serve as an excellent vehicle for social reporting.

Employee Newsletter

An employee newsletter tends to be used in the same way as a stockholder magazine. However, the topics covered are apt to be different because of the specialized interests of employees. Such a newsletter may also be in-

tended for distribution to *potential* employees, such as college students, or to other outsiders who are interested in knowing more about certain aspects of the company and its people than is made available to the public generally. Again, the tone of such publications is usually very positive.

Advertisements, Press Releases, and Press Interviews

Institutional advertising sometimes presents social information as its primary message. Often in such advertisements the message deals with overall company policy or "credo," but more frequently it deals with specific social issues—the environment, resources, or employment. The information presented usually describes only the company's most positive actions in relation to a community or society in general. When the company and government regulators are at odds, advertisements are used to present the company's point of view. However, when a national problem such as the energy shortage is involved, information often has been presented with what appears to be substantial objectivity.

Advertising is sometimes used to deal with social information relating to a current event or a change generally deemed to be of immediate social significance. As such, it and its companions—press releases and press interviews—are used to obtain attention more rapidly—often more widespread attention—than other approaches allow. A company initiating a socially beneficial project or responding to a social problem thus can report these events through news media within a reasonable time to a large audience.

Special Legally Required, Publicly Available Corporate Reports

An increasing number and variety of reports are now being filed by individual companies with federal, state, and local governments. The public frequently has access to such reports when the documents are part of the record of a public hearing, either in accordance with the special rules and regulations governing the hearing itself or as a matter of legally prescribed routine. In addition, there has been a trend toward reducing

the amounts and kinds of information that are to be treated as confidential under freedom of information acts and their various implementing regulations. Such information may have been developed originally by the government or by the company or may have constituted what might previously have been the record of private proceedings.

Information contained in reports of this type normally reaches the general public through the efforts of third parties. It is most apt to appear as articles in newspapers and magazines or in books in response to general public interest of a short- or long-term nature, as scholarly research. This material forms an important part of the information base available to public interest groups for use in their studies and other activities. Finally, in terms of national or regional data, it appears in the annual reports of governmental agencies with respect to their problems and activities.

The most comprehensive reports by private industry usually relate to the environment; environmental impact statements and other environmental reports are required in relation to either construction or operational activities and almost always must be made public. However, extensive information is also available on many other subjects, since virtually all governmental regulatory bodies are required to hold public hearings on subjects of public interest and to make information submitted to them generally available. This information obviously is not submitted to these agencies in order to communicate with the general public and, in fact, much of it may be more extensive and technical than widespread public use requires. Thus, the role of the third-party reporter and interpreter develops much as it has in the case of financial information. Firms frequently accompany submissions to governmental bodies with summaries, often in laymen's language, to assist in this interpretation process.

Some of those interested in increasing access to corporate information are attempting to make reports filed with governmental agencies outside of the public hearing process available to the general public. Many such attempts have been resisted by companies and governmental agencies due to fear of misunderstanding of complex information or the disclosure of data valuable to competitors or public interest groups. It seems likely that this issue will have to be resolved in the courts.

Special Reports to Selected Audiences

Some companies prepare special reports for selected audiences that they, for one reason or another, desire to or are willing to "inform." On a voluntary basis, for example, a company may choose to report to a com-

munity or a neighborhood on matters of mutual interest. Or, because of a desire to cooperate for positive reasons or to avoid the unfavorable consequences of noncooperation, such as "bad press," misinformation, or community antagonism, a company may also decide to furnish information to selected groups or organizations such as public interest firms or groups with special interests. Often the information and its manner of presentation will be specified by the requesting organization so that information received from several different companies can be as comparable as possible, although the form and content may be left up to the company. Sometimes information about the company gathered from other sources will be submitted to the company for verification or comment. But whatever the reporting format and detail, these special reports are significant because of the potent effect they may have on public opinion. They are also significant because such groups frequently point out discrepancies between information that is received in this manner and information that appears elsewhere.

Nonwritten Reports

Some companies present oral reports to supplement or serve in lieu of written reports in appropriate circumstances that meet the needs of issues and audiences. A few such examples are television or radio commercials, media interviews with company officials, films or film strips prepared for schools or other interested groups, oral presentations at stockholder meetings, and discussions of company activities at meetings of community organizations.

External Reporting by Means of Annual Reports to Stockholders

To date, the vehicle most commonly chosen for public disclosures of social information is the annual report to stockholders. The current status of and trends in external social reporting by that method can best be seen by a review of disclosures made in annual reports submitted to stockholders during 1975.

It should be noted that the social information contained in such reports is not now being presented in financial statements or their accompanying notes unless its economic impact requires that this be done.

This means that social information, like other statistical data and the president's letter, is not formally reported upon by the company's independent accountants.

A wide variety of information is presented in annual reports to stockholders. Examples taken from several 1975 annual reports to stockholders illustrating various subjects and forms of presentation, are shown in Exhibit 12-1.

Methods of presenting social information

The examples in Exhibit 12-1 illustrate the variety of social disclosures often found in annual reports to stockholders. If the items disclosed are quite varied, so too are the methods of presentation. The four methods most commonly used are

- A separate section of the annual report, usually described as a "social report" or some similar title.
- A separate section in the president's letter.
- Identified coverage as part of the discussion of other major topics, in the president's report or elsewhere.
- Integrated coverage throughout the report without special identification.

The president's letter is frequently used to make social disclosures. Sometimes they are presented in a separately titled section; often the individual subjects are appropriately indicated, but discussed in the context of other types of information.

Titles under which social information appears in the Celanese report for 1974, for example, are

- A responsible corporate citizen
- Public responsibility committee
- Environmental management
- Energy conservation
- Equal employment opportunity
- Employee health and safety
- Consumer satisfaction
- Product safety
- Job training and community service
- Corporate contributions

Using a separate section of the president's letter tends to give less visibility to social disclosures than does using a separate section of the annual report itself. Visibility is further reduced when social disclosures are included as part of other major topics or when the disclosures are spread throughout the annual report. Visibility, however, is not the same as effectiveness—excellent disclosures clearly are possible when social and economic performance are reported in an integrated manner. One example is the American Electric Power Annual Report for 1975, in which the company devotes several pages to its well-publicized disagreements with several governmental agencies and presents a substantial amount of social and economic information to explain its point of view. This report, it should be noted, is not an example of objective language or presentation, but it is an illustration of the effective integration of social and other kinds of information throughout the contents of the annual report. The American Telephone and Telegraph Company report of 1972 effectively illustrates an approach to integrating its corporate credo with the current reporting of various types of information.

Again, most annual reports to stockholders stress the positive aspects of the company's social performance through the processes of selection or expression. However, there are enough examples of more objective reporting to indicate that the annual report to stockholders can be effectively used in that manner.

Abt Associates, Inc.

A discussion of external reporting would not be complete without mention of the experiment in social reporting which Abt Associates, Inc. has been carrying out since 1971. That company includes in its annual report to stockholders not only a normal set of audited financial statements but also an unaudited set of social statements. The latter includes a social balance sheet, a social income statement, and extensive notes describing the manner in which the statements were prepared. Abt's social statements are expressed in monetary terms, developed by applying their version of market-value concepts.

In these reports, Dr. Abt illustrates one way in which a comprehensive report, set forth in dollar terms, might work. The result is interesting and imaginative. However, as is by now evident, we have substantial reservations about this approach for both technical and conceptual reasons. We

also believe that the relative simplicity of the Abt setting—a consulting firm—reduces the diversity and complexity of matters to be dealt with to such an extent as to make the Abt undertaking unlike that which would be faced by most of American industry. Interested readers may refer to the annual reports themselves and to the various articles in which Dr. Abt has set forth the concepts and procedures his company employs.[1]

Other Comments on Annual Reports to Stockholders

At this time, all social disclosures in annual reports to stockholders are voluntary. There is no requirement to discuss social responsibility unless the economic consequences are such as to make them significant from a financial point of view.

Because of the voluntary status of disclosure, the lack of guidelines, and the basic problems inherent in social measurement, most present disclosures can be characterized as imprecise, verbal rather than quantitative, selective, nonnormative and noncomparative (except to the prior performance of the reporting company). Substantially all socially responsible actions are being measured in terms of costs incurred or descriptions of efforts made. Measurement, even in imprecise terms, of the effects on society resulting from these actions is very limited; measurements of impacts on social conditions are more numerous.

There is little concern about matching costs and benefits, as in the traditional accounting model. Many of the disclosures currently being made are concerned with programs that have existed for years or programs that have just begun and are budgeted for activity many years into the future. Thus, dollar figures presented are not necessarily subject to the usual fiscal year or operating cycle restraints.

Companies usually do not present a "statement of social measurement accounting policies" similar to the statement required to be included with financial statements prepared in accordance with generally accepted accounting principles. Therefore, it is usually not possible to determine how social costs are calculated.

[1] See, for example, Clark Abt, "Managing to Save Money While Doing Good," *Innovation,* January 1972.

There also is a great deal of inconsistency among the definitions of social costs. For example, one company may consider costs of a voluntary pension plan to be social costs, while another may not do so. Or, there may be an inconsistent treatment of cost recoveries (such as of scrap) arising out of socially desirable programs. These concepts are discussed at length in Appendix 3 and are mentioned here only as examples of the great diversity of practice in the current voluntary reporting environment and the lack of guiding principles or standards.

SEC Filings

The legal powers and prestige of the Securities and Exchange Commission make its attitudes and actions of crucial importance in financial accounting. They are currently of less importance in connection with social accounting, because of the SEC's decision to consider that social information falls outside its area of responsibility unless it also has material economic consequences of an unfavorable nature.

The SEC's posture, and its underlying rationale, are set forth most clearly in a series of SEC Releases—Numbers 33–5704 (May 6, 1976), 33–5627 (October 14, 1975), 33–5569 (February 11, 1975), 33–5386 (April 20, 1973), 33–5235 (February 16, 1972) and 33–5170 (July 19, 1971). All are concerned with environmental matters in the light of the general disclosure authority of the SEC under federal securities laws and the special obligations imposed on all government agencies to further the objectives of the National Environmental Policy Act of 1969 (NEPA).

SEC Releases No. 33–5704, 33–5627, and 33–5569 result from a directive by Judge Richey in a suit brought against the SEC by the National Resources Defense Council, ordering that the SEC reconsider its existing disclosure requirements in light of NEPA.

The SEC's response and revision is set forth in Release No. 33–5704 in the following manner:

> The Commission's disclosure requirements, as amended today, are designed to elicit information regarding (1) the material effects that compliance with federal, state and local environmental protection laws may have upon capital expenditures, earnings and competitive position of registrants, (2) all litigation commenced or known to be contemplated against registrants by a government authority pursuant to federal, state or local environmental regulatory provisions, and (3) all other environmental information of which the average, prudent investor ought reasonably to be

informed. Such information appears to be that which is of interest to investors and its disclosure to them would appear also to be of some benefit to the environment. The Commission has also extensively considered whether other types of disclosure requirements might provide additional meaningful environmental information of interest to investors and of benefit to the environment, but has concluded that, at present, this is not the case. Many of the proposals which have been suggested seem to be premised upon the assumption that the Commission has the principal responsibility for substantive regulation of environmental practices. The Commission cannot, itself, undertake to regulate corporate conduct which affects the environment. Congress and the states have created government authorities specifically to perform this function. We must presume that these government authorities are responsibly performing their duties and our disclosure requirements are necessarily premised, in part, upon this assumption.

The amendment referred to in the foregoing excerpt serves to clarify the SEC's previous rule rather than to alter its underlying philosophy with respect to the disclosure of social information in general or the requirements of NEPA in particular. Thus, the SEC's position remains essentially unchanged from pretrial days. What action, if any, will be taken by Judge Richey or by the National Resources Defense Council or others remains to be seen.

The position of the SEC is set forth at considerable length in Release Nos. 33-5704 and 33-5627. The releases make quite clear the SEC's belief that its role is to deal with the financial and economic interests of investors. They acknowledge that NEPA establishes special obligations but state that for important practical reasons—among which cost of compliance, danger of misinterpretation, lack of standards for significance, and the assignment of enforcement responsibilities to other governmental agencies are the most significant—the extension of SEC disclosure requirements beyond those required by the SEC's amended rules is unwise. Release No. 33-5704 states that the Council on Environmental Quality "disagrees with the Commission's (SEC) analysis of its obligations under NEPA" and discusses why suggestions made by the council have been rejected.

In its more general discussions of the current status of social measurement and various disclosure alternatives, the SEC describes many of the present problems that are discussed in this book, along with the difficulties and costs associated with the public disclosure of a wide variety of social topics. While the SEC expresses its intention of continuing to reevaluate the need for social information from time to time, it would appear that it will substantially alter its present position only with reluctance.

Disclosures under SEC Release No. 33-5386 in documents filed with the SEC are instructive to the social measurer. They are substantially greater in length than those in annual and special reports intended for general distribution and tend to be made in a more legalistic style; they tend to portray the company's position in an objective or even unfavorable fashion and frequently to present evidence of considerable differences of opinion between the company and the courts, regulators, and public interest groups. In all of these respects, disclosures are no doubt influenced by the substantial legal penalties that can be imposed under the various securities acts. In fact, the social disclosures may be overly unfavorable in order to be on the safe side. If disclosures in SEC reports are taken as models of what would be disclosed under pressure, one would be forced to conclude that voluntary disclosures of unfavorable matters in non-SEC reports might leave much to be desired. One also would conclude that a good deal of balance is lost in the process.

The SEC has evidenced substantial interest in another aspect of corporate social performance—improper payments. In fact, the SEC has been using its disclosure powers to play a leadership role in this area. Originally, most of its interest was related to illegal political contributions within the United States and to payments to foreign government officials and political parties. Subsequent disclosures have become more inclusive, encompassing other foreign and domestic business relationships as well. Much of the stated rationale for these disclosures is economic in nature—no matter what the social undertones may be. First, there is a real or presumed risk that business requiring illegal payments may not be as profitable or dependable as that arising from normal commercial practices. Second, there is real concern that corporate financial records that are prepared so as to conceal one type of illegal payment can and will be altered for other payments as well. Finally, there is a concern, when top management has knowledge, as to its "integrity" in a variety of other corporate situations.

It is worth noting that the SEC has relied primarily on corporate *self*-disclosure (in most instances after consultation with the SEC) while still making clear to companies its intention of comparing their disclosures with information available to the SEC from other sources. Companies have responded with investigations conducted by some combination of company officers, internal audit groups, directors, external counsel, and independent public accountants.

The experience of companies has shown that the distinction between legal and illegal and proper and improper is often not clear and that differences in cultures, laws, business practices, and moral and ethical

beliefs increase the likelihood that the same payment will be viewed quite differently by each of the two parties involved and by outsiders, including the general public. Experience also demonstrates that the ultimate purpose or recipient is at times unclear. However, corporate disclosures and reports in the media also reveal that payments often have been made for purposes that many would consider did not conform to *their* definition of responsible corporate behavior. Further, they indicate that, if one assumes the validity of corporate statements that top management was unaware that corporate policy was being violated at lower levels, most corporations do not find that their past performance constituted the type of social performance that they would approve of either.

At present, the ultimate form of "acceptable behavior" or of disclosure requirements is unclear. One problem obviously is the difficulty of developing guidelines or definitions that apply to a variety of complex situations. On the other side, there may well be a feeling that the present process—which involves not only the SEC but also committees of the Senate and House, the injunctive powers of the courts, independent accountants and outside counsel, boards of directors, and corporate management and their staffs—is "working." Finally, there is evidence that the government's view of corporate impropriety may be an expanding one and that there are distinct advantages to keeping options open now.

Obviously, from the social measurer's point of view, disclosures of this type are significant. It is possible, however, that the criteria being used to identify these payments may well be more legalistic than a social measurer would find desirable for his purposes.

Final Comments and Recommendations

It would be presumptuous for the authors of this book, on their own, to undertake to promulgate authoritative standards at this stage in the development of social measurement. However, a number of suggestions have been made throughout that individual companies may wish to use as guidelines. It is hoped that they will become generally recognized and accepted or that they may be considered by an official body convened to agree on reporting standards. In the area of reporting, the following seem to be particularly important:

1. *Neutrality.* Social information should be presented without bias; both good and bad social effects and consequences should be reported.
2. *Consistency.* If the report is held out to be comprehensive, the same items should be reported each year unless there is an important reason

for a change. It does not seem appropriate to omit information about an area of continuing social concern. In fact, if this is done, speculation will develop as to the company's motives for doing so.

3. *Comparability.* Information should usually be presented so as to provide some basis for judging comparative performance—using data about prior years, industry norms, government standards, and so forth.
4. *Clarity.* In the absence of common terms and definitions, a special effort should be made to present social information clearly. This may require a description of the measurement techniques employed.

It is almost as difficult, given the variety of situations in which companies operate and the state of the art of social measurement, to make specific suggestions about the form and content of a corporate social report intended for a general audience. Our preferences, however, are as follows.

1. Primarily, reliance initially should be placed on a specifically identified social report (a) enclosed with the annual report to stockholders, (b) included as a separate, clearly identified section of the annual report to stockholders, or (c) issued separately from the present annual report to the stockholders. These preferences, listed in declining order, reflect our belief that a separation of social information from financial information at this time will help to bring about its more complete and neutral presentation. The separation will affect not only the space made available for social information but also the language used, the sophistication and technical quality of the information provided, the choice of subject areas, and the balance between disclosures of good and bad. Separation also should facilitate the use of the best data, prepared so as to be most meaningful, in accordance with measurement principles and techniques that are disclosed. Our preference for inclusion of a social report in one form or another with the annual financial report reflects our view that such information should be considered jointly as one part of a comprehensive socioeconomic report as well as separately, for its own merits.
2. Reports should be based on a *selection* of the company's most important actions, activities, and impacts, presumably made from the kinds of topics listed in Exhibit 11-1. Because of an inability to use a single measurement unit or to develop a compact, publicly acceptable index of performance, reliance should be placed on a series of descriptions about performance in the chosen areas. These descriptions should use

a combination of narrative and quantitative data, most or all of which should have been developed initially for internal purposes.

3. Emphasis should be placed on presenting a fair, balanced, and reasonable profile of the company's overall performance. This may involve the presentation of information about plans and corporate goals and objectives as well as about past and present performance. The reporter should give serious consideration to whether the information provides a fair impression of the company's *overall* behavior—both good and bad—as well as of its performance in the selected areas. In other words, the information presented with respect to individual aspects of a company's performance should constitute a reasonable profile. The result should be neither an apologia or defense nor an unrealistic exhibition of puffery.

   The items selected and the information should normally include those for which one or more, but not necessarily all, of the following characteristics exist:

   - The area is one about which society has evidenced considerable concern and in which the company's impacts are reasonably significant.
   - Changes of considerable magnitude have occurred or are planned, which are expected to have important economic or social effects.
   - The company's performance is, in some important way, considerably superior or inferior to "normal" corporate performance, governmental standards, or the like.
   - Public attention has been drawn to adverse aspects of the company's performance by newspapers, magazines, and the broadcast media.

   The report should use the broad view of "social" that underlies this book and should include matters that, under another view, might be deemed to be "nonsocial" because they are "economic."

4. Comparisons should be used to make the data presented more meaningful to the typical reader.

5. The bases on which the data were compiled should be indicated in the report itself, or willingness to make this type of information available in a separate document should be expressed.

It is likely that the period of experimentation with corporate social disclosure will continue for some time. This is desirable because it allows companies to try out different approaches and learn from their own and others' experiences.

Improvements in reports have already been seen. Further improvements will result from increasing interest on the part of stockholders, consumer groups, the press, governmental agencies, and other organizations.

From the foregoing, some directions for future social reports seem to be emerging:

1. Disclosure of social information will ultimately become a regular feature of corporate annual reporting.
2. The method of disclosure will become more standardized—probably as a separate social report or as a separate section of a report containing both financial and social information.
3. The information covered in social reports will also become more standardized. All companies will, at a minimum, include their actions in respect to certain specified areas of social concern.
4. As techniques for making quantitative measurements improve, an increasing amount of quantified information will be presented. However, some purely verbal descriptions may always be expected.
5. Corporations will begin presenting more comparisons—with their own past experiences, government standards, and industry norms.

Exhibit 12–1

Disclosures of Social Information in Annual Reports

Celanese

		Percent of Minority and Women Employees in Each Job Category			
		1966	*1970*	*1973*	*1974*
Celanese Domestic Work Force [1]		26,500	25,000	26,000	26,000
Total employees	Minorities	5.6%	9.3%	13.4%	14.1%
	Women	25.2	27.5	31.5	31.5
[2] Managerial & supervisory	Minorities	.4	1.1	2.9	4.0
	Women	.7	1.5	4.4	5.1
[2] Professional	Minorities	2.6	3.9	6.1	6.7
	Women	4.0	5.2	7.4	9.7
Sales	Minorities	1.3	3.4	2.7	4.6
	Women	2.2	4.7	4.8	7.5
Technicians	Minorities	4.6	8.6	8.9	9.7
	Women	27.2	29.0	31.5	33.7
Clerical	Minorities	4.4	10.3	12.9	14.5
	Women	77.2	79.7	83.4	85.9
Hourly: skilled	Minorities	2.7	4.5	11.6	11.7
	Women	.3	1.7	3.0	2.8
semiskilled	Minorities	7.1	11.8	17.6	19.2
	Women	33.0	36.1	47.1	48.2
unskilled	Minorities	25.2	30.4	32.5	27.1
	Women	8.0	9.3	11.9	14.2

[1] Includes workers on furlough as of year end.

[2] Managerial and supervisory: executive, managerial and supervisory employees, including salaried foreman. Professional: employees with college degrees or equivalent experience, including chemists, engineers, lawyers, personnel workers, et al.

Container Corp. of America

Container is highly integrated from forest and secondary fiber sources to the finished product. A wastepaper repulping facility now under construction at the Fernandina Beach, Florida containerboard mill will increase the company's recycling capacity, and raise capacity of this mill to 2,000

Exhibit 12–1 (cont'd)

Container Corp. of America (cont'd)

tons per day. The Fernandina mill is the largest of the company's domestic mills, which together produced 1,666,834 tons of paperboard in 1974. Of this total, recycled wastepaper provided 44% of the fibers utilized, while waste wood chips and pulpwood represented the balance of 56%.

In 1974 a new wastepaper processing facility was opened in Jacksonville, Florida, and an additional wastepaper processing plant was opened in the Chicago area in the summer of 1975. The company last year collected 1.2 million tons of wastepaper, of which 65% was recycled into new products by company mills.

Alumax

In 1974 additional pollution control equipment was installed by the company at a total cost of about $8 million. In 1975, $8 million more will be spent for pollution control equipment to be installed at the new potline at Eastalco, Frederick, Maryland, bringing the total cost of pollution control equipment at Eastalco to more than $13 million.

About $3 million will be spent at Intalco in 1975 on bake oven scrubbers and waste water treatment. The Intalco pollution control program is acknowledged as one of the most effective among the primary reduction plants in the Pacific Northwest. Pollution control equipment for the company's proposed aluminum reduction plant in Eastern Oregon will cost about $42 million.

American Cyanamid

With greater emphasis placed on supervisory participation and safety training in 1974, Cyanamid achieved a company-wide safety performance goal of a disabling accident frequency of one per million man-hours worked. This represented a 24% reduction from our rate of 1.31 in 1973.

Cyanamid's 1974 overall safety performance was approximately 10 times better than the all-industry average and four times better than the chemical industry average, based on National Safety Council 1973 statistics. Our employee safety and health programs continue to exceed in many respects requirements of the Federal Occupational Safety and Health Act. While we are pleased with the progress made in 1974, we are still not satisfied with the results. We will, therefore, continue to set challenging safety performance goals and strive to achieve them by introducing new programs and improving existing ones.

DuPont

DuPont's formal aid to education in 1974 totaled approximately $3 million in grants to colleges, universities, and other educational organizations.

This support was divided between two major areas of concern: improvement of education and research in science and engineering, and minority education. A large part of the program (nearly $1.9 million in 1974) continued to consist of unrestricted grants, given primarily to departments of biology, chemistry, engineering, and physics in public and private institutions, including liberal arts colleges. Another $240,000 went to support research by young faculty members.

DuPont aid to specific minority education increased to more than $600,000 in 1974. About one-third of this went to predominantly black colleges and universities for general institutional support of their science and engineering programs.

A special grant of $111,000 not included in the $3 million total went to Delaware State College, a predominantly black institution, for special programs. Company support for the college over the past three years totaled $423,000.

Eastern Gas and Fuel

Goals for 1975. In an atmosphere heavy with new and changing legislation, much of our effort will be spent to accomplish full compliance with laws and regulations. Beyond that, we intend to intensify our safety efforts and improve upon our overall 1974 records by 10%. In minority employment, we hope to raise our percentage above 8% and continue our upward trend in employment level. We anticipate that with our broadened activities charitable giving will rise above $400,000 in 1975.

General Motors

By developing the catalytic converter system for our 1975 cars, General Motors improved gasoline mileage over 1974 models by a significant 15% per car on a sales-weighted average. We expanded our development alternatives to the internal-combustion engine, but as yet we see no economical and efficient substitute that is capable of meeting the statutory emission standards and GM fuel-economy objectives.

Exhibit 12–1 (cont'd)

Getty Oil

The California Division's three-year sump elimination program was nearing completion at year-end 1974. A total of 210 open sumps, 22 of them in the Coastal District and 188 in the San Joaquin Valley District, had been cleaned and backfilled by early 1975. The total cost of this sump elimination program through 1974 was $2.8 million.

Honeywell

Our total domestic contributions were $1.3 million in 1974, with approximately 50% allocated to health and welfare, 40% to education and 10% to civic and cultural purposes.

Honeywell's commitment to social concerns also was expressed in more than dollars.

Encouraged by corporate policy statements and flexible time-off arrangements, more Honeywell employees than ever before loaned their skills and knowledge to community projects.

McDonnell-Douglas

Numerous MDC personnel availed themselves of the many company-sponsored opportunities to continue their formal education and broaden their work skills. In 1974, there are 34,344 registrations for MDC-funded programs, including college study, adult education, cooperative education, evening study, apprenticeship, and management and technical training. In our College Study Program, 272 received degrees or certificates, including six Doctorates, three Professional, 84 Masters and 43 Bachelor's degrees, and 136 Certificates.

Mead

Employee concerns that surface through the three-year-old Corporate Responsibility Committee will get a fresh look in 1975 when two new employee members are appointed. The Committee of five directors and five employees examines Mead's obligations to owners, managers, employees, customers, communities and governments and recommends courses of action to directors and management.

Monsanto

Partially offsetting higher fuel costs was the company's expanded energy conservation program. The effort, first given major emphasis in 1973 in the

Monsanto (cont'd)

U.S., was extended to Canadian and European locations. By improving day-to-day operations and making incremental investments in existing units, the company's 1974 energy consumption rate was cut 8%—saving $18.7 million in purchased energy.

Norton Simon

At this point in time, the question of whether or not business has a social responsibility is virtually rhetorical. The day is long since past when corporations can come before you and simply recount their successes and setbacks in strictly profit-and-loss categories. Now, they must also account for their activities in the social area—in matters of the environment, human resources, consumerism, and product accountability.

. . . We have several responsibilities—to our stockholders, our employees, our customers, and to the public at large. In the last analysis, profit and social responsibility are inseparable because social responsibility without a profit behind it becomes nothing more than theory. If we meet both responsibilities, we are a long way toward meeting any test of corporate citizenship.

thirteen | Credibility and Assurance

The degree of credibility accorded a particular piece of information results primarily from what the reader knows about (1) the characteristics inherent in the information itself, (2) the availability of techniques for obtaining it, (3) its source, and (4) the extent of independent verification.

The inherent nature of the information has a lot to do with it. If the information is historical in nature, it will appear more credible than if it deals with the future; if it is concerned with objective characteristics, it will seem more credible than if it relates to the subjective; if it deals with subjects about which information has been produced for a long time, it will be more credible than if it explores new areas.

The credibility of information is also affected by what knowledgeable users know about the problems of generating the information, about the state of the art of measurement techniques upon which it is based, and about the existence of generally accepted principles and standards for developing, presenting, and disseminating the information.

The source of information also adds to or detracts from its credibility. A belief that the preparer had direct access to the information is, of course, fundamental as is the credibility of other information emanating from the same or similar sources. But, probably, most important of all, is the concern with either deliberate or unintentional bias, based upon the interest of the company or other source of the information. Thus the credibility of information is often greatly affected by the extent to which assurance is or can be provided by an objective third party.

Barriers to the Credibility of Social Information

On the basis of these criteria, preparers of corporate social information may expect to experience problems of credibility for some time. They will

be most of the problems that attach to such well-established fields as financial reporting as well as those that will arise because social reporting is new, complex, and technically underdeveloped. Consider, for example, the following:

1. Social information will often be new and different, dealing with subjective areas, or with future events. In fact, in many cases what is to be measured will not be completely defined.
2. Since the areas chosen for social reporting will be selective rather than all-encompassing, the nature of, and the reasons for, omissions will be questioned.
3. Since the items to be reported within the selected areas will be indicative rather than comprehensive, their appropriateness will not automatically be accepted.
4. Since measurement techniques will be in the process of development, they will not be uniform or "generally accepted" or even commonly applied. Measurements and investigative results will often be descriptive discourse or a mixture of the qualitative and quantitative; this "indefinite" nature will cause difficulties. Since the information produced will be incomplete in coverage and will have a broader than usual range of accuracy, its "vagueness" will be a source of questions.
5. When norms or standards of comparison are employed, particularly those implying amounts or degrees of responsibility, the extent of their acceptance by groups holding different views about corporate roles will vary.
6. Because the process will be new to both preparer and reader, communication will be difficult.
7. Since the report will be that of management, its objectivity will have to be established with those who may suspect it to have self-serving purposes. At least initially, even if attempted, an auditor's examination resulting in anything approaching an unqualified opinion on financial statements will have to be limited to a relatively few specific areas.

These remarks may appear to reflect such severe handicaps as to preclude the development of much in the way of credibility for some time. This need not happen. The factors that will be most useful in developing a more positive credibility image are the following:

- The practice of reasonably complete and balanced disclosure.

- The gradual development and application of generally accepted principles and standards of measurement and presentation.
- A degree of openness that does not force the company's judgments on the reader.
- A gradually increasing practice of seeking an independent audit of social information intended for external audiences when the information permits it and more limited forms of assurance, largely for internal use, when that is possible and appropriate.

Disclosure

Credibility begins to be established when the user of information has confidence that there has been reasonably complete and balanced disclosure of the company's performance with respect to significant matters. This does not mean that there must be disclosure with respect to *all* matters, for, given the inability to use a single unit of measurement and thus to obtain an aggregate result, the consequence of numerous measurements would be an enormous and unwieldy amount of information. Likewise, it does not mean that the company should not be able to report on one or a few areas or aspects of its performance—for example, on minority employment—so long as it indicates clearly that the report is limited in that respect.

What it does mean is that the company will not use the process of selection to include those areas in which its impacts have been favorable and to exclude those areas involving unfavorable social consequences. Such a concern is realistic; considerable evidence is available that companies are reluctant to report unfavorable developments. The best method for dealing with this problem would be to begin with an authoritative list, established outside the company, which contained those areas of social concern about which all companies should report unless there is good and sufficient reason for not doing so. Such a list could be generated from government agencies, public opinion surveys, social research studies in the academic community, or industry collaboration (see chapters 3 and 11). Both the list and its authorship would be referred to in the report, and the reasons for its choice and reasons for omitting certain areas of it would be noted. In addition, a statement could be required to the effect that all additional areas were reported upon that were deemed of significance because of the specific nature of the company's activities.

Such a list of suggested reporting areas obviously would involve more material than could be covered in a few pages in an annual report. Thus,

a company would be forced to increase the space allotted in such a report, to provide the information in a separate, more extensive report, to label the material included in the shorter version as highlights from a second (available) report, or to otherwise make modifications that conform with the basic principle that reporting should not be selective. Some companies might opt for an extensive presentation of information about one or two areas of greatest social concern, with a reference to the separate report for information about other areas. Some accusations of concealment—justified or not—should be expected when this procedure results in avoiding reference to areas of unfavorable performance in a more complete report receiving smaller circulation.

If an official or quasi-official list of areas does not become available from sources outside the company, the company should, in essence, make one of its own. An "unofficial consensus" could be developed, based on an analysis of the reports of other companies or the areas of greatest concern identified in public opinion surveys or in studies published by business and professional organizations, and academic and business writers. The list contained in Exhibit 11-1, or a more abbreviated version of it, could also be used for this purpose.

The second aspect of disclosure is the selection of those matters that are to be reported within each area of concern. This is important because the matters selected will properly represent performance within the individual areas only if they do, in fact, constitute a profile of the entire areas or, more likely, "indicate" the company's performance without providing completely detailed coverage. The same basic problem exists as with the selection of the areas themselves—that of establishing credibility that the selection of indicators has not been deliberately made so as to present a picture that emphasizes only the positive elements.

The solution to this second problem is not simple. The list of indicators from which to select is long, and there is a considerable chance that the selections made will not be, nor at least seem to be, completely appropriate to the reader. At times, the problem can be resolved by using a government-prescribed document such as the EEO-1 (Employment) form. At other times, lists (such as those included in this book) can serve as starting points. "Authentication" by outsiders with expertise in the subject matter of the area and in the problems of measurement can be used sometimes. There can be reliance on the practices of others, but very often the company's own judgment will be of primary importance, and acceptance of objectivity will then be based on the reader's perceptions of the logic of the selection of the indicators and the apparent balance of "good" and "bad" in the information.

Openness

A second, related factor is the degree of openness displayed in presenting information and in disclosing the manner in which it was developed.

It is evident to those who are familiar with social measurement that its current state of development warrants a considerable degree of humility among its practitioners. This can be achieved in several ways—by generally acknowledging the limitations of the current state of development, by not attempting to extend tenuous concepts of what can be accomplished to artificial levels of sophistication, or by making a straightforward exposition of what has been done that will allow readers to make their own judgments. The first two approaches are self-explanatory; the last requires a few words of comment.

Obviously, the quality of a social report depends upon many things—the quality of expertise by which it is developed, the adequacy of the effort made to obtain information, the sources of information utilized, and the measurement methods employed. Quality of expertise covers not only skills and experience, but also organizational stature, independence, and sense of professionalism. The discussion of what has been done to develop information can cover the availability of data, its apparent quality and utility, and the sources actually used within and outside of the company. The discussion of methods can describe those used, presumably in a brief and general manner, but, quite possibly, it could extend an invitation to bona fide researchers to review a more complete description of them. Providing information along these lines could conceivably overwhelm the data presented, although experience shows that a general understanding can be conveyed in a relatively few words.

The second and perhaps the more important aspect of openness involves the issue of independent judgment. In an area in which values are known to differ, many readers will have or believe that they have different scales of values from those that are held by corporate executives. Information—such as a report describing a situation as "satisfactory"—will seem to many readers to be most credible when both the data and the basis for the conclusion are stated (that is, the company's value scales are revealed); this will indicate the company's willingness to subject its conclusions to other value judgments. Reports may be suspect if only conclusions are stated; but, they may be confusing if only basic information is provided without conclusions or comparisons with corporate or other norms or trends.

Obtaining maximum credibility on this score will often be difficult, if not impossible. And even when possible on technical grounds, it may be un-

desirable for other reasons such as comprehensibility or industry competition. Thus, a compromise may be decided upon as the best course of action. Companies should, however, be aware that something is being given up in every compromise and should not ignore their impacts on the question of credibility.

Standards of Measurement and Presentation

Credibility and the prospects for it increase when generally accepted standards of measurement and presentation have been developed and are applied in the preparation of a company's social report. Standards bring about greater uniformity, higher quality, and better communication. Assuming they are not rigidly established and excessively detailed, they permit adequate flexibility.

There are, at present, serious limits to the extent that standards can be developed and the extent to which credibility can be based on them. As is evident from earlier discussions, many measurement principles and techniques will need to be improved and their application made less costly before social performance measurements will attract a high degree of credibility. That is not to say that some measures do not warrant substantial credibility already. Nor does it say that the situation will not improve, for there will be constant developments in techniques and methodologies and a concomitant increase in well-established standards. Greater credibility will result from openly acknowledging reality—from disclosing methods and their limitations and the bases used to reach conclusions—rather than from pretending things are better than they are.

Greater credibility is likely to be accorded measurements that do not appear overambitious. Greater acceptance will be given when measurements seem logical and possible since measurement techniques will prove most reliable in measures of the simpler and more straightforward aspects of corporate performance. Such measurements will push more of the responsibility for interpretation on the readers, but they also will conform more closely to readers' notions of credibility.

One problem that cannot easily be solved arises out of the use of verbal descriptions instead of quantitative data. Without question, quantitative data give the appearance of greater precision and accuracy than verbal descriptions, no matter with what degree of care the latter may be written. As a matter of fact, verbal descriptions may frequently be taken to be evasive whether or not such a conclusion is justified. The way out of this dilemma is not evident.

Standards of presentation are also important for they provide guidance as to what constitutes adequate presentation under different sets of circumstances. They tend to reduce the variations employed, make those situations which do differ more readily identifiable, and make the differences more meaningful.

Without question, the quickest and surest way to destroy credibility of presentation is through the choice of language. Anything that sounds like what is sometimes called a "public relations document" will immediately be suspect in view of the readiness of many readers to believe that the information may be self-serving. For most reports the safest and surest approach would seem to be to use language that is as straightforward and factual as possible, without qualifiers and value expressions.

Finally, credibility does not require that a company accept externally imposed standards of conduct without objection when it disagrees with them. As is indicated in chapter 10, the passage of legislation and the establishment of regulation are far from precise arts; neither is *guaranteed* to produce the desired or even desirable results nor to do so in the most cost/effective manner. Corporate managers have a right, if not an obligation, to make their views known. To contest legislatively established standards may seem to be socially irresponsible; however, to the more knowledgeable, it will appear to be an essential part of the process of establishing standards of responsibility. Through careful writing, this can be made clear to all. Thus, the potential exposure to charges of irresponsibility can turn out to be evidence of credibility when a revealing dialogue can be brought about.

Assurance and the Processes of Independent Audit or Review

The final factor to be discussed is assurance and the potential roles of independent auditors or reviewers.

The practice of self-reporting has a history in the United States that is more extensive than is found in most countries in the world. There was a time when most companies could rely solely on their own credibility. This situation still persists, although to a lesser extent, for instances of conflict of interest have led to presumptions of bias and advocacy. Independent investigation or self-reporting plus independent auditing have been called for with increasing frequency. Given the inherent possibility for differences of opinion over social information, there is little reason to believe that the

credibility of social reporting would not benefit from some form of assurance from an independent third party. Certified public accountants play a prominent role in providing credibility to financial information; thus, it is logical to ask whether they can perform in a similar fashion with respect to social information.

The vocabulary of assurance

It is easier to discuss assurance with people who are not practicing certified public accountants than with those who are. CPAs have, over the years, come to assign very precise meanings to words dealing with assurance. They have established carefully reasoned and defined concepts and standards, standard terminology and have precise procedures for dealing with exceptions to them. They are much concerned with degree of responsibility, with how one establishes importance and materiality and many other matters. In many instances, they have been influenced by requirements of the Securities and Exchange Commission, by court decisions and by experiences in client-related situations. They have been concerned primarily with the audit of financial statements and are conditioned by the nature of the information with which they deal.

CPAs likewise seem to have done a thorough job of preempting most of the words associated with assurance and the processes by which it is provided. Those words that are left for a less rigorous form of assurance or for assurance with respect to information involving a broader range of accuracy are few in number and not particularly expressive. For purposes of this discussion, we shall use auditing terms as a CPA would and invent or redefine one or two as the need arises.

The examination of financial statements

An auditor's examination of financial statements and his opinion thereon are based on an important body of knowledge that includes—

- Generally accepted accounting principles.
- Generally accepted standards for auditing and reporting on the results of audits.
- General reporting standards, relating to the form and content of the financial statements themselves.
- Standardized terminology.

Each of these has been developed by or with the assistance of the accounting profession. In addition, general principles and systems of internal control and reasonably similar accounting and clerical systems and techniques, developed primarily by the corporate community, are important.

In the case of financial statements, the subject matter with which the auditor is to be concerned is largely agreed upon, as is the basic framework within which the information is to be reported. To a great degree, the accounting system itself is controlled and self-balancing, although not all entries are necessarily legitimate and not all classifications are necessarily appropriate. Virtually all of the information involved is historical and is expressed in dollars or related quantitative terms.

The examination of social information

Social information is both like and unlike information contained in financial statements. Clearly, it cannot be comprehensively audited or reported upon by an auditor in the same manner as financial statements. That, however, does not mean that some of it cannot be dealt with in a useful manner.

An auditor's ability to examine social information and to express a positive opinion with respect to it depends upon the basic quality and nature of the information and the procedures that produce it. Information that cannot meet the requirements for audit cannot be audited. On the other hand, not all social information is unauditable.

If the profession wishes to adopt a posture of not auditing any social information until *all* can be audited, or of leaving such auditing to a new profession, it can, of course, do so, assuming society will permit it. However, the option that seems preferable is for the profession to attempt to move along with improvements in social information and, in fact, to influence the course of development of social measurement in a way that will reflect the auditor's needs.

Some information will quite likely never be auditable. Or, the cost of doing so will be so great that users will choose to do without that form of assurance. Where these areas and limits lie will be among the kinds of knowledge gained from this process of growing.

With these comments on auditability in mind, we shall examine various types of currently available social information.

The governmentally prescribed form

A good place to start is with one of the governmentally prescribed forms. Consider the information on minority employment, which is required to be

submitted on Form EEO-1. Its format is clearly specified, as are the definitions of terms, reporting units, and so forth. The information required is further described in the regulations and a method is provided for obtaining interpretations from the government agency that issued the form. A user can expect to find a high degree of comparability of data and has the opportunity to read the regulations himself to better understand the information. The data are historical and quantitative and are based on records that must be kept by law. The subject matter is not complex. It clearly can be audited without sophisticated knowledge or procedures.

The auditor can not only examine corporate records but also use appropriate adaptations of audit procedures based on written confirmations, personal interviews, and the like to obtain other evidential support. An auditor's opinion could use the EEO-1 regulations as its frame of reference —a rough but adequate equivalent of GAAP and other authoritative sources in the financial field. Presumably, the opinion could state that the report had (or had not) been prepared in accordance with the EEO-1 regulations.

The EEO-1 report is a straightforward government report covering important aspects of a company's performance in an important area. It is by no means the only report of this kind, because government agencies, particularly some of the newer regulatory agencies, have required a considerable diversity of information about areas of social concern. Similar reports relate to aspects of employee safety, product safety, environmental matters, and so forth. If the EEO-1 report can be audited, other reports with similar characteristics can be audited as well.

Reports requiring special expertise

Most government reports are not so complex as to require a great amount of special skill in their audit. However, as one moves into environmental matters and certain other areas, conditions begin to change. The requirements for knowledge of physical, chemical, psychological, or other matters increase along with the need for a knowledge of measurement based on instrumentation. The auditor may find he would be wise to, or forced to, use the work of a nonaccounting expert in forming his opinion. Such an expert normally would be a member of the audit firm's staff—perhaps a skilled "nonaccounting" auditor—or an individual expert, perhaps from the academic community, or a firm of nonCPAs with the requisite expertise.

Assuming the subject matter presents no problems other than those

arising from technical knowledge, the auditor's concern becomes the question of reliance on expert assistance. When should such reliance be disclosed? How? When does the relative contribution of the expert become so great as to make it unwise for the auditor even to imply acceptance of responsibility for the expert's contribution by providing an opinion as to the overall results? These questions and others like them, which are the subject of a recent AICPA pronouncement, "Using the Work of a Specialist" (Statement on Auditing Standards No. 11), become more important in the social field where the knowledge and experience of diverse disciplines will often be essential.

The CPA profession may resolve some of these issues as it becomes more heavily involved in the economy, efficiency, and effectiveness aspects of the General Accounting Office style of audits. Perhaps resolution will emerge out of experience on large-scale consulting assignments involving shared or divided responsibilities with professionals other than CPAs. Or, perhaps, relying on special expertise will be a part of the process of "growing" with respect to the attestation of social information. Clearly, there are a number of situations where, except for the reliance on experts, social information could otherwise meet all or almost all of the requirements for independent audit now.

Accounting Information Relative to Social Costs

Capital expenditures and operating expenses incurred for particular purposes may currently be amenable to independent audit. At times—as when identifying expenditures made for training certain classes of employees—no unusual problems will be encountered. However, on other occasions—such as might occur where capital expenditures and operating expenses for the reduction of pollution are not readily distinguishable from normal expenditures without expert assistance—reliance-on-experts problems might well appear. Auditing future capital expenditures and additional operating costs, whether as a result of court order, government requirements, or voluntary planning may require expert assistance because it relates to events that have not as yet occurred. The regulations of the Securities and Exchange Commission and certain other government agencies already require disclosure of such information.

Other Types of Social Information

The examples just described all deal with specific pieces of information the disclosure of which is either governmentally prescribed or conventionally requisite. The data are largely historical, quantitative, and objective—not atypical of social information. This class of information is relatively easy to deal with. It is important as information per se and as an area in which the auditing of social information can begin and from which it can grow.

There is another class of social information that, at least currently, is far less amenable to audit because it lacks many of the objectively verifiable characteristics noted above. However, it may be an appropriate subject for more limited, restricted forms of assurance. Basically, it involves areas for which the key requirements of public auditing and reporting do not now exist. There are no equivalents of generally accepted accounting principles, general standards of presentation, standard definitions and terms, or generally accepted auditing standards. The information required in each of these areas and the ways it may be obtained are developmental in nature, not based on widespread research and experimentation, not proven by wide de facto adoption, nor by acceptance by corporate or professional organizations. Substantial agreement exists on some subjects, but there are a variety of views on others.

Some of these disagreements are crucial for they significantly affect what information a company develops, the manner in which it is developed, and the form in which it is presented. Consider the effects of different answers to the following questions:

1. If a company wishes to report comprehensively, what areas should it cover?
2. Within an area, what specific actions and impacts should be considered indicative?
3. On what basis can it be decided that impacts are inconsequential or that all significant impacts have been covered?
4. On what basis can the sensitivity, reliability, or limitations of various measurement techniques be established?
5. How can impacts whose effects extend considerably into the future be dealt with?

6. In the absence of standard terminology, how can common understanding be achieved?

Other Forms of Assurance

In the face of a lack of agreement on matters such as comprehensiveness, representativeness, significance, predictability, and terminology, it is not reasonable to expect that audits can currently be made of social information (except in the limited areas previously discussed) that will result in anything approaching the unqualified opinions auditors usually are able to render on financial statements. The inherent uncertainty about the accuracy of information is one major problem. The lack of standards to guide the auditor and lend authority to his opinions is another.

However, a legitimate question remains: Does the fact that an unqualified opinion is impractical mean that there is no intermediate point and that one must rely solely on the word of the person preparing the data? The answer patently is No. Some degree of assurance can be provided; but, the problems are (1) defining that assurance, (2) giving one's authority for it, and (3) taking reasonable precautions that the audience for the report will not be such as to misunderstand or misuse it.

One possible solution lies in what might be called a "suitability appraisal," with the process by which one arrives at conclusions being termed a "REDSA," an acronym based on "review to develop a suitability appraisal." Some would term it solely a consulting engagement, but we believe a REDSA will have sufficient elements of investigation, assurance, and advice to warrant a new term. In fact, what originates as a consulting engagement concerned solely with the design of a system might then progress into a REDSA, where both the system and the information it produces come under scrutiny. Eventually this may develop into an opinion-directed audit when the information meets more stringent requirements. What ultimately might become generally accepted, authoritatively supported standards would probably be, at the level of the REDSA, largely the opinions of an individual expert, a firm, or a group. (Such standards might actually be widely held, but this would often not have been authoritatively established.) The suitability appraisal would be the personal opinion of the independent expert vis à vis the work of the company, and the appraisal made would be the opinion of one expert or firm. As

an individual or even a firm—whether agreeing or disagreeing with the company—the expert's authority would be far less weighty than that which would be derived from broadly supported authoritative standards. One opinion opposed to or in support of another is not an adequate basis for an opinion designed to carry the same authority as the CPA's professional opinion on financial statements. It may be adequate for a REDSA, however, particularly if the expert's credentials in the matter under appraisal are substantial.

Moving from a single expert's opinion, through a useful degree of consensus, to an "authoritative standard" may take many routes. The discussion of Form EEO-1 demonstrates how an officially promulgated government regulation might be used as the standard for disclosure and reporting for that area. If there were a government regulation specifying all areas of reporting, and indicators within those areas, definitions of terms, and so forth, they could be similarly used. If areas, indicators, and definitions were established by a nongovernment body, or by one in which the government was only one participant, such lists could also be used as standards. They might not be the best, but they would be "authoritative," established independent of the company, and could be amended. A longer, slower, and less certain approach relies on the emergence of a consensus. In any approach, however, research will be required into what things are significant and what information can be provided about them.

The problems of lack of standards and of possible inaccuracies place a considerable burden on the reader's understanding of a suitability appraisal. Readers who lack either an adequate background in a subject or a specific understanding of the situation existing in a company will only rarely be able to understand such an appraisal correctly. There will usually be more material than they can absorb, and it normally will be presented in a manner that assumes knowledge they do not or cannot possess. While it could presumably be written at a level that would be appropriate for the uninitiated, the very nature of its subject matter probably will render it fairly sophisticated. An appraisal report might be expected to be relatively free-form in approach, following whatever manner of presentation is most appropriate rather than one that is prescribed by generally accepted standards of reporting. Finally, one should anticipate that the expert and the reader would discuss the appraisal report and its conclusions at length, whereas a document intended for a wider audience would normally be a one-way communication. As social information develops its own standards, as the conclusions of the evaluator become simpler to state, quantification increases, and exceptions become fewer, readership can be

expanded. What may start out as a report for a relative few who are essentially insiders could grow into an audited document intended for a more general audience.

The final problem to be discussed relates to uncertainty and inaccuracy as it arises out of an absence of standards, inadequate methods, or similar difficulties. For this, the REDSA and its report may be a solution. The expert can provide his estimate of the appropriateness of what has been done, of the suitability of the measurement techniques, of the strengths and weaknesses of the procedures, of the possible or probable types or range of errors present in the results and other kinds of information that will help the readers to appraise the suitability of the information for their purposes. By no means will all the opinions expressed be favorable or even categorical (for the expert himself will frequently be uncertain). Where possible, the expert can be expected to make practical suggestions for improvement.

If REDSAs are made over a period of years, presumably they will develop considerable refinement and accuracy. As standards and techniques emerge and improve, one can anticipate that the information in an increasing number of areas will become suitable for audit. In the meantime, periodic suitability appraisals can serve the purposes of a corporate management, a special committee of a board of directors or of others concerned with the development of corporate policies and the impacts of corporate actions.

A REDSA

A general idea of the form and content of a report prepared as the result of a REDSA can be gained from the following illustrative example. It is an example of a relatively comprehensive REDSA. Suitable modifications would be made in light of the characteristics of individual companies or when the scope of the REDSA was limited to the appraisal of a particular organizational unit, or function, or type of information.

Title. Comments on Review of Suitability of Social Information contained in Report of XYZ Company dated _____.

Addressee. Corporate Management, Social Responsibility Committee of Board of Directors (or a similarly limited group of knowledgeable individuals).

General Nature and Purpose of Review

1. To provide addressees with an appraisal by an independent party as to the suitability of the social information contained in the specified report for its intended (specified) purposes.
2. To suggest the nature of improvements that should be attempted by improving coverage, employing more appropriate methods or making more satisfactory use of them, adopting generally accepted standards or in some other manner.
3. To describe the nature of the review made, including its methods, scope, necessity for relying on expert impressions and opinions, and so forth.

General Qualifications

1. Limitations are imposed by the relatively primitive state of the art, characterized by a lack of knowledge and experience; inadequate techniques of measurement and interpretation prevail in some instances; there are frequently no rules and guidelines, standards, consensus, or "generally accepted principles of social measurement."
2. Certain premises underlie the appraisal: (a) that the cost of obtaining information should be weighed against its apparent accuracy and value, (b) that reasonable concepts of privacy should be presumed to exist, (c) that individual companies should not be expected to engage in substantial social research to determine specific impacts on society arising out of business actions that are common to a large portion of businesses.
3. Governmentally established information requirements and professional pronouncements of generally accepted standards will, in the absence of conspicuous evidence to the contrary, be accepted as authoritative without independent research.

Comments About the Report Itself

1. The inclusion of (or failure to include) all the items having a significant bearing on the company's social performance; avoidance of the practice of selectively including or excluding areas or of inappropriately indicating their importance in order to make the company look good; the reasonableness of the indicators chosen for individual areas.
2. The existence or absence of a corporate credo, describing the company's policy with respect to social performance.
3. The nature and reasonableness of the company's basic information-producing strategy, measurement of impact on conditions vs. quality of life, use of a variety of scales and measures, use of surrogates and other indirect measurements, blurring of distinction between economic and social, policy utilized with respect to discounting, other major principles of accounting and evaluation.

4. The appropriateness of the measurement techniques, sampling procedures, analytical processes, and quality control methods, and the extent of their actual use in collecting and interpreting information.
5. The conformance of procedures followed and data collected with those set forth in governmental or other regulations prescribing the information to be reported.
6. Major assumptions, if any, underlying the measurements taken and information produced; major uncertainties and their treatment.
7. The sources of norms or other bases of comparison and their relevance for the company's purposes; reasonableness of comparisons with particular emphasis on consistency over time and in matters affecting current comparability.
8. Apparent completeness and probable range of accuracy of information; clarity and balance in presentation; adequacy of disclosure.

Suggestions for Improvements

1. Major improvable weaknesses and nature of suggested improvements.
2. Comments with respect to quantity and quality of measurement effort.

Overall Comments

1. Overall appraisal or, more likely, appraisal of suitability of information in different specific areas.
2. General appraisal of extent of progress since last review.

Who Should Audit or Provide Assurance With Respect to Social Information?

There is, of course, no reason automatically to assign the responsibility for providing assurance about social information to the accounting profession or to any other single group, nor is there an obligation for any group to accept this responsibility. Each interested party—CPAs, management consultants, government agencies, and others—must examine its desires to participate and earn the right to do so.

In the last analysis, credibility will rest on the skills, experience, and public recognition accorded to the individual (or his firm, discipline, or profession) by those who will use the social information being reported. Evidence of this already exists in many fields of information. As yet there is no real evidence of how the practice of auditing will develop in the extremely complex and varied field of social reporting. Clearly, though,

no one professional group now has the skills, interest, and public recognition to carry out such a task on its own.

In newly emerging fields of special knowledge such as social measurement, distinguished academicians are often sought out for confirmation of assertions and reports involving their respective disciplines. To academicians and researchers, however, auditing voluminous and recurring information is apt not to be of much interest as compared with pursuing new information or knowledge. However, just as academicians, researchers, practitioners *and* auditors participate in the field of accounting, so can they be expected to participate in all of the fields associated with social information. Many already do. They are employees of government departments or of professional firms who are engaged in the evaluation of governmental activities and programs; others are doing the same thing on behalf of the General Accounting Office and departmental audit divisions of the federal government. If people like them can be attracted to social measurement in government, they can be expected to respond in similar fashion to business and to organizations serving business as soon as there is a need and an opportunity. In fact, individuals from a variety of disciplines are already working for companies and professional firms on measurements in selected areas. Few, if any, are now working on what they would call "audits"—although some are lending their name to the credibility of Environmental Impact Statements by participating in their development and presentation. It does not take much to imagine their participation as independent auditors. As in accounting, people from every discipline will be concerned with the design of systems, the development of data, the interpretation and use of information, and with auditing and reporting on it.

Governmental agencies are possible candidates for auditing social information. They have ready access to specialists in all disciplines by means of consultative arrangements or full-time employment; they have the resources to develop audit procedures, and they have the power to set standards and enforce disclosure requirements. However, government is itself a main performer in the arena of social action and therefore is not well fitted to a role where independence is of the essence. Finally, overall assumption of this responsibility by the government would be considered by many to be an unwarranted incursion into what should and could be a private-sector activity.

The people with the greatest relevant experience in auditing are certified public accountants. They know how to assemble data and are trained to judge evidence in terms of its relevance to the truthfulness of an assertion. They are accustomed to considering the cost of obtaining evidence as com-

pared with the incremental assurance provided. They are quick to perceive conflicts in data. They seek consistency of information with that reported by others for they have been constantly reminded of the need for these attributes by users of financial statements. On the other hand, CPAs and their firms would need to broaden their outlook and the disciplines available to them if they were to take on this task.

To the extent that independent audits take place in the area of social information, they will probably depend, at least initially, on a variety of groups. No doubt the government will want to use staff of its own to determine the accuracy of reported data in areas for which it has legislatively assigned responsibilities, although the government has increasingly shown a disposition to rely on financial and nonfinancial information that has been examined and reported on by independent auditors. In other instances, audits may be undertaken by accounting firms that, as the need arises, augment their own resources with temporary or permanent staff having abilities beyond those normally present in their own organizations. Examinations may be carried out by nonaccounting professional groups whose skills lie mainly in social areas, or the skills of more than one firm may be combined in some kind of cooperative arrangement.

Finally, audits may be performed by a company's own staff even though it would not be an effective means of enhancing credibility. Their knowledge of the company and its impacts and problems would be great, and their independence might be sufficient for internal purposes. The company might do a fine job, but it would have unavoidable problems of credibility. Its contribution, therefore, will probably parallel that of the internal auditors in financial auditing—working with recognized independent auditors, managements, and social performance committees of boards of directors.

Summary

To be useful, information on corporate social performance must command belief in its relevance and reliability. Although credibility is only partially within the control of those preparing the information, it can be enhanced through active recognition of the following factors. Information on corporate social performance is most believable when it—

- Identifies the important social impacts arising out of the corporation's activities.

- Quantifies with reasonably accurate measurements and describes as precisely as is practical.
- Clearly discloses both the good and the bad about at least a minimum set of areas.
- Is internally consistent and capable of being compared with other sources.
- Proves to be reliable over time.
- Is not substantially different from impressions derived by readers from other sources.
- Passes the scrutiny of the auditor.

We cannot expect that social information will acquire credibility, except in a limited number of areas, without a substantial amount of development. As a general rule, obtaining the assurance that comes from an independent audit and report cannot proceed more rapidly than progress in the development of the information that is to be audited. The prospect of providing such assurance can and should influence the manner in which progress is made in developing information.

The likelihood that one can move directly from providing no assurance to the degree of assurance implied by a professional auditor's opinion seems to be remote. A more likely route is for both to grow together. This, it has been suggested, might come about through auditing in an increasing number of selected areas, plus the development of a different form of service—a review for the purpose of appraising the suitability of social information.

It is not unreasonable to assume that the technical difficulties and cost of auditing will place limits on what eventually can and will be audited. Where these limits lie should ultimately be established on the basis of experience gained in carrying out audit examinations and "suitability appraisals" and evidence of the importance attached by society to different degrees of assurance.

fourteen | Making the Initial System Operational

How should the concept of social measurement be introduced into a company and made operational in its initial stages? How does a company move from a position of informed interest to one of actual involvement? Actually, in the same manner as one would undertake any other kind of far-reaching corporate project involving extensive, pioneering kinds of information.

The procedures for getting started with a social measurement system can be summarized as follows:

- Making the commitment to proceed and informing the organization
- Selecting a staff
- Developing a plan
- Agreeing on the measurement areas to be covered, the techniques to be used, and the form and content of the reports
- Designing the necessary procedures, training the personnel, and implementing the new system

In view of the size and complexity of the undertaking, this outline may appear to be an understatement. It really is not. It includes all the major steps in the process—only their implementation is difficult.

The Commitment

The decision to measure certain aspects of social performance—for example, certain of the company's environmental impacts, or its personnel practices or its record in occupational safety—has been made for most companies as the result of legal requirements established by a governmental agency. If, however, the process of social measurement is conceived to include a wider examination of corporate activities and a more complete description of a company's performance, a larger commitment, made by

top management or the board of directors will almost certainly be involved. This commitment must be communicated to other levels of management so that they can understand what the top executives have in mind and be convinced that it is not to become a "corporate office public relations project" but is to play an important, substantive role in the company's future plans and operations.

A commitment to proceed with the development of social information is likely to have more ripple effects in a company than many other kinds of decisions made by top management. The decision, when communicated to other executives, can be expected to raise questions in the minds of some as to the degree of the company's real interest in such matters, the reasons for, and legitimacy of, that interest, and the extent to which it may replace or be added to other goals. The program's actual or perceived aims may be ones with which the individual manager is in personal disagreement. To some managers, the commitment may seem to signal a constriction of their freedom to manage their operations or, at least, an added complication in their jobs. They may infer an additional basis for the appraisal of personal performance.

The initial communication should provide executive personnel with at least initial answers to some of these questions. It should not only set forth the reasons for the company's interest in social information but also make clear the company's continued interest in profits, productivity, and other economic matters. It probably should indicate how social information will be used internally and externally, at least in a general manner. The company's overall social and economic philosophy may be presented briefly or in detail.

The initial communication should normally describe at least the initial scope of the project, indicate the executive or executives who will take the lead roles, point out its pioneering aspects, and ask for cooperation and assistance.

The commitment to launch an undertaking of this sort should be realistic in terms of time, cost, coverage, degree of perfection, and other matters. It should recognize the continuing evolution in the field and the desirability of creative experimentation.

Staff

Identifying personnel to carry out the project may involve assigning the responsibility to an existing department or to a combination of departments, establishing a new corporate office, bringing in outside consul-

tants to develop the initial social performance report, or other alternatives. No matter what the basic approach, however, it is essential that sufficient qualified staff be identified so that the key staff members can be actively involved in the planning and so that appropriate personnel will be available throughout the various stages of the project.

Critical to the success of a social measurement project is a staff that is well qualified and adequate in size. If the staff is inadequate, there really is no way that the job can be done. In terms of numbers, it will be necessary in most cases to assign at least a nucleus of people who can devote their full time to the project. An attempt to use only part-time staff members will almost surely not be effective. It may be practicable to appoint a fairly small full-time staff and supplement this task force with the part-time assistance of employees drawn from throughout the company. If this approach is taken, a realistic appraisal should be made before concluding that these employees will, in fact, have the time and the degree of commitment necessary to do the job.

Varied skills will be required. The task force should include staff members with experience or access to skills in accounting, personnel, product and process engineering, marketing, general administration, and so forth. It may also require assistance from within the company or from outside consultants in economics, sociology, psychology, public health, systems design, and other disciplines. The areas covered in the measurement effort chosen will, of course, dictate the abilities the task force will need.

In recruiting staff for an initial task force, the possibility or probability of a permanent organization should also be considered. Task force members will have more personal commitment to the success of a project if some of them are to continue their association with the work after the initial undertaking has been completed. For this reason, it is important to involve company employees and not rely solely on consultants or solely on employees who will have no involvement after the initial effort.

An important consideration in planning the project is whether to use a steering committee, an ad hoc committee, a new department, or an existing department as the focal point for the initial study. This decision may depend on the capabilities, experience, and interests of the key executives involved. If several key executives from different departments and functions are actively engaged in the project, a steering committee approach may be most appropriate. If one individual is the working leader, then his department may well assume primary responsibility, even though people from various departments make up the task force, provided they have adequate stature to complete the project.

The Plan

After personnel arrangements are agreed upon, formal organizational arrangements should be established. The unit should report at a high level in the company in order to indicate top management support and in order to facilitate access to departments and officials throughout the company and to outside experts if they are needed.

Preparation of a plan should usually begin with discussions leading to an explicit definition of what is to be accomplished. While uncertainty is to be expected at the outset, and the plan will very likely be revised as implementation proceeds, there should be, from the beginning, a formal expression of what is to be accomplished and the way the work is to be carried out. The plan should set forth agreements reached as to personnel assistance to be received, the kind of progress reporting to be provided, and estimates of time and costs. The work schedules of task force members and other participants should be reconciled, in total, to a comprehensive, time-phased project budget. The budget, in terms of hours, dates, and costs, should be approved by the executive assigned overall project responsibility. (It is desirable to obtain tentative budget approval before selecting staff members.)

A series of progress points or milestones should be established to enable the project manager and responsible executives to assess performance on an interim basis and to change manpower or redefine goals. The task force should be required to submit written reports at the progress points to the project manager and the steering committee and/or the responsible management official. Selected progress reports or condensations of them should periodically be sent to the president and interested members of the board of directors.

The plan should specify how the project is to be concluded, for otherwise the work may end with few concrete results or the task force may drift without purpose after its usefulness is over. A final task force report and arrangements for the official assumption of responsibility for operating the system should establish cutoff targets.

Measurement Areas and Techniques; Form and Content of Reports

Determining what actions and results will be measured, by what techniques, and how they will be reported will require considerable study if

the suggestions contained in this book are to be applied or adapted to a particular company. The following section offers one method of proceeding. It is presented as a "work program" that will serve not only to indicate what needs to be done and the order in which tasks should be performed, but also to highlight for a task force the major steps that need to be taken.

Work Program

Determining overall scope of measurement project

1. Using one or more of the approaches described in chapter 3, identify the actions, impacts, social conditions, and publics with which the company's initial system should be concerned. This can be done by starting with the lists included at various points in this book and making appropriate modifications. Alternatively, the social sets can be identified by making a more or less independent study using a matrix or procedure/function flow approach; or, a combination of both approaches can be used. Such an identification can be made for the entire company or for major divisions or functions.
2. Select from the items thus identified those that the company considers to be important. These will presumably include company actions in areas of significant social concern (even if only to establish that the company does *not* have a major impact in these areas). It should include actions in areas where the company has had, or believes it has had, a major impact, whether or not the areas seem to be of significant overall concern. And it should include those actions by which the company has the opportunity to make a major change plus the resources and the desire or requirement to do so. One would expect a substantial coincidence of items to arise from the application of all three criteria.
3. Decide which of the areas selected in step 2 will be the subject of company-developed social performance information and whether the information will be gathered on a regular, routine basis or only through intermittent special studies.

Information developed on a regular basis

1. Establish an overall initial implementation strategy, determining whether to cover (a) a large number of areas quickly and superficially,

thereby involving a number of organizational units or (b) a small number of areas slowly and in depth (thereby providing a better demonstration project and a sounder basis for reviewing business policies and practices in particular areas) or (c) an appropriate combination of the two. In any strategy, coverage of areas in which the company is believed to have a minor impact should be postponed, unless the information is legally or otherwise required.

2. For each of the items selected, determine what kind of information will be most useful.
   - Will it be information that shows the status at selected points of time (as, perhaps, in the case of minority employment) or is there a need for information showing the actions, impacts, and efforts over a period of time (as in hiring, training, and promotions)?
   - Should the status be shown relatively infrequently (as perhaps with employment) or daily or hourly or even more often (as perhaps with pollution)?
   - Will it be information that relates primarily to the company's actions, without attempting to define and measure precisely the impacts that are believed to occur or are accepted as occurring (out of a desire primarily to alter company action) or is the information designed to establish the nature and extent of the impacts themselves? Will the information be used to determine the cost, efficiency, and effectiveness of the company's efforts?
   - Will it be information that is detailed and accurate or will it, because it is used primarily to set general directions and for similar broader purposes, be useful if it is wider in scope and approximate in nature?
   - Will the information developed be confined to what is available quickly or will the decision and action points permit information to be developed over a longer time span?
3. Decide how best to provide the information that will be most useful or whether the problems, costs, and other limitations of doing so are such as to require that the informational goals be altered. (The various checklists provided may be helpful in indicating what might be considered to be reasonable information goals.) Among the matters to be considered in reaching a decision are these:
   - Practical problems such as the cost of developing the information; the availability of suitable techniques for collecting, analyzing, and interpreting the information; the presence or absence of such spe-

cially qualified personnel as may be needed; the willingness of individuals to provide information on matters that some might consider to be sensitive.

- Whether existing knowledge is adequate to identify the impacts of business and to indicate which direct and indirect measurements will be most meaningful.
- Whether the information, once obtained, will seem credible to prospective users or appear to be intentionally biased or, for other reasons, of dubious validity.
- The nature of the information required by law or available from other sources that can serve either as the company's initial measurements or as bases of comparison.

4. Make the necessary compromises and arrive at a conclusion about what is to be measured and how; develop and test the procedures for obtaining the information, paying particular attention to the following:
   - Developing precise statements of the information wanted, with clear definitions of terms (and ample illustrations).
   - Establishing appropriate sample sizes and selection procedures for both the measured and the control groups (if any).
   - Developing statements as to how costs and cost offsets or income are to be determined, following the principles set forth in appendix 3.
   - Designing data collection procedures.
   - Establishing quality control procedures that will cover data collection, summarization, analysis, presentation, and interpretation.
   - Deciding where and how to use experts (especially those from fields not represented in the project staff).
   - Establishing procedures for handling doubtful information and dealing with other procedural and data-related problems.
   - Fixing responsibilities for collection and summarization, analysis and interpretation, presentation, review, and use.
5. Train the personnel involved in gathering and summarizing data and in using the resulting reports.
6. Embark on the initial attempts at measurement; monitor them carefully; improve and correct initial data and procedures.
7. Put the process on a routine basis, but continue to make improvements. (Most major new procedures are changed in their initial years as opportunities for greater speed, accuracy, and efficiency are recognized and as managerial desires for information or social concerns change.)

Information produced by irregular or intermittent special studies

1. Identify the types of information for which special studies will probably be required. These will be most apt to relate to the project- or event-oriented activities of the company. Some, but relatively few, will probably be related to proposed or existing pro bono publico projects of substantial importance. Most will, however, pertain to important projects or decisions in the mainstream of the company's business. These will include important research and development projects, major construction projects and equipment acquisitions, new product decisions, and similar major events. Finally, special studies may be made of regularly recurring activities not considered of sufficient importance to warrant routine information efforts or of activities or characteristics that, once studied, are not expected to change.
2. Anticipate the procedures, manpower, skills, and information needs that will be required for such studies and proceed to acquire or develop them.

A final word

Making the initial system operational has virtually all the characteristics of any major information-producing project. Its pioneering aspects accentuate the problems that are involved and emphasize the need for high quality personnel, flexible and careful planning, reasonable expectations, determination, and a sense of humility.

What happens in the field of social measurement will largely reflect the efforts of initial systems developers and their successors. Therefore, it seems appropriate to conclude with the following, for it fairly reflects the attitudes of those who have already helped to bring social measurement as far as it has come:

Be aggressive—do what can be done without waiting for refinements or new developments

Be eclectic—consider approaches and methodologies from whatever source or discipline

Be ingenious—experiment, try the unusual

Be cooperative—share knowledge and experience with others

Be a builder—assist in the development of a social measurement methodology

Be humble—don't claim to have accomplished too much.

appendix one | Comparison of Ideal and Achievable Systems of Social Measurement

This book is intended for an audience that may be expected to be involved with the practical problems of developing and using social information. Its main purpose, therefore, is to describe what the authors believe is an initially achievable system of social measurement. However, even a practical system must be based on some underlying concept. The purpose of this appendix is to present one conception of an "ideal" system of social measurement and to compare it to the practical, initially attainable system described throughout the book. This will indicate the extent of the compromises that have been made and establish a set of bearings by which to distinguish between steps that retreat from the ideal and those that advance toward it.

The ideal system of social measurement was defined in chapter 2 in terms of its critical elements. We shall discuss (1) what the elements are and why they are desirable in an ideal system, (2) what would be required to attain them, (3) why certain of them may not be attained (at least initially), (4) what approximation of the ideal may be attained in an "initial" system, and (5) what improvements may occur in the "reasonably foreseeable" future. The initially achievable system is thought of as being operational or capable of being so by 1985, given adequate interest and effort. The "reasonably foreseeable" system could be in operation by the year 2000, based only on a linear extrapolation of current trends (that is, assuming no major breakthroughs in economics, information processing, the social sciences, and other fields). To the extent that there are such breakthroughs, this "reasonably foreseeable" system may appear modest and unassuming in retrospect.

By defining an ideal system of social measurement, the authors have assumed a vulnerable position. It is certain that more sophistication will develop in the field of social measurement as more thought, research, and experience accumulate. From that superior vantage point, these efforts may ultimately seem crude. Nevertheless, a system must begin with some premises, and these are the ones that have been chosen.

The principal elements of an ideal system of social measurement are set forth below:

1. An ideal system of social measurement would, in fact, be a *system* based on *measurement.*

2. It would produce information about each and every cause/effect relationship arising out of the impact of any defined entity on the quality of life of all significant segments of society.
3. The resulting information would be expressed in quantitative terms that not only would be separately useful for the immediate purposes of the measurements but also would be initially expressed in or converted to a single, common measurement unit.
4. Measurements would be made for the duration of the impacts in a manner giving appropriate recognition to timing differences using direct methods, without surrogates; they would be consistently applied across entities and constituencies and over time in a manner that was neutral toward any particular set of social objectives and required only a minimal expenditure for measurement costs.
5. The information thus produced would permit both the entity's management and outsiders to engage in efficient decision making, using sound socio-economic planning and control procedures, to evaluate an entity's past, present, and future actions using both normative and nonnormative bases of comparison to continue or, if need be, to modify the entity's "contract with society."

This definition is intended to be neutral with respect to any specific set of social goals. It does not refer to a higher or lower quality of life nor to any particular set of values as being good or bad. It does not do so, even though, by definition, the system is required to produce information that will help an entity to adjust its relationships with society in the light of whatever the society's goals may be. Complete neutrality is, of course, impossible. Some value structure is implicit in the very mode of analysis contemplated in this definition. In aspiring to neutrality, the authors seek to impose as few as possible of their own values in order to permit the developer and user of the information as free an exercise as possible of his own.

Theoretically, the ideal system could be an extension of the economic measurement system. In fact, some people, particularly economists, have not only suggested such an approach but also have proposed principles and methods by which they feel this could be accomplished. Most notably, they have attempted to demonstrate how a number of externalities (either economies or diseconomies) might be valued in economic terms—thereby providing a basis for adjusting economic results as derived from market-priced transactions. Economists recognize that the results would be far from perfect but believe they would be less subjective and arbitrary than would results generated by other systems. They likewise feel that such a system could later be developed and refined. Those preferring not to build on the present economic system feel that the requirement that all measurements be in economic terms is excessively limiting and unduly complicating. They also believe that, in varying degrees and for a variety of reasons (such as, consumer surplus, effects of income distribution,

imperfect competition), market prices are not as accurate an expression of social value as they may appear to be.

A System Based on Measurement

To state that an ideal system of social measurement would, in fact, be a *system* based on *measurement* is to state the obvious; but, it permits a discussion of some of the characteristics of (1) a system and (2) a system based on measurement. Both concepts have some importance because the initial system is not totally a system nor is it totally based on measurement.

A system

First and foremost an ideal system would be a system—an integrated and coherent whole, whose bounds and objectives were known. It would use sets of standard (or generally accepted) principles, terms, units of measure, and methods of reporting to bring about a high degree of uniformity in most situations and a reasonably consistent approach in exceptional cases. Within individual companies, there would be well-established records and procedures, adequate supervision, and internal controls to assure that the information produced was acceptably accurate. The system would have reasonable balance, with its different elements in appropriate relationship according to their relative importance. There would be well-developed procedures for disseminating and using the information produced. In their own ways, an ideal system of social measurement and an ideal system of financial measurement would have much in common.

Social measurement systems are in a relatively primitive state of development. In selected areas—especially where the government, through legally promulgated requirements, has taken the leadership—most of the elements of a system are present. They apply, however, to limited, specific areas that were not developed as part of an integrated and coherent whole.

A few approaches to integrated systems have been suggested, but they encounter enormous problems, even though they are attempting to deal with far less than an ideal set of system requirements. A great deal of work would be required, at both theory and practice levels, before a system incorporating the elements of an ideal system could be designed and implemented.

The initial system envisioned by the authors will consist of a series of more or less well-developed *subsystems,* designed primarily to meet immediate, localized objectives, but expected to be helpful in moving toward the broadly conceived, overall goal. The structure of the eventual system may be generally clear, but how it will work in practice and how the various subsystems will be integrated into it will be far less so.

Over the foreseeable future, one can project the development of more and considerably better subsystems, with better procedures, better definitions, and

similar improvements. One can likewise anticipate a clearer view of the grand design and its components. Finally, one can foresee conflicts among subsystems and between subsystems and the grand design that will require that there be greater similarity in terminology, principles, and procedures. Under the aegis of professional practitioners, corporate executives, the academic community, and governmental regulators, solutions providing varying degrees of satisfaction may be expected. It would be most surprising, however, if the ideal were to be achieved; but, it would be equally surprising if, in the foreseeable future, there is not some progress toward the ideal.

Measurement

By definition, an ideal system of corporate social measurement is also to be based on measurement techniques that will determine the classification, order, amount or degree of some attribute of corporate life about which social information is desired. If this is to take place, a number of requirements will have to be met.

First, corporate managements will have to believe in the importance of a methodical determination of "the facts" of social information. Measurement often involves a degree of cost and care that other methods of developing information do not. Frequently, in this matter, the government will obviate choice. However, more information will have to be developed as the result of internal management decision than would be the case under conditions of external compulsion, if it is to be developed at all.

Second, for there to be measurement, there must be techniques that can deal with a great number and variety of areas. They will have to be sufficiently objective to eliminate bias and unintentional error, even in essentially subjective areas. And, they will need to be compatible with the standards, principles, terms, and units of measure to which they are intended to apply.

Third, the measurement techniques will have to be adequate not only to measure relationships between actions and impacts that are known to exist but also to assist in establishing what these relationships are. Logic and intuition will undoubtedly be most important but mathematical, statistical, and other forms of analysis will be needed, too.

Fourth, measurement requires skilled measurers and interpreters—individuals whose training and experience qualify them to obtain the proper information and to interpret it correctly. In companies, social data will often be obtained by using relatively unskilled personnel and routine clerical procedures to carry out the instructions of experts from various disciplines—much as occurs in the financial area. An ideal system thus would require both professional skills and ways of applying them through the use of less-skilled personnel.

Finally, social measurement requires a population's willingness to be measured for socially useful purposes. In some areas and with some people, the

problems involved can be expected to be minimal. In other areas or with other people, a feeling of invasion of privacy can lead to a refusal to participate, giving deliberately incorrect responses, and similar problems. In an ideal system, both the techniques and the approaches (e.g., minimal invasion of privacy, and independence of the measurer) will have to be sufficient to overcome such normal, quite human reluctances.

The initial system can be expected to reflect barriers to the attainment of the ideal. Where government requirements exist, the company will have little choice but to comply. In other cases, involving areas in which only partial or no government requirements are present, the company will be on its own. The importance attached by corporate executives to obtaining social information will differ considerably, based on the particular problems of their company and industry, their view of future developments, and their personal and corporate management philosophies. This will affect their personal support for developing social information as well as the amount of funds and professional and other skills they will provide. Most companies will initially make only a modest commitment to producing social information, by comparison with other information producing efforts. The initial system likewise will reflect the strengths and weaknesses of the techniques available, the skills of the measurers and interpreters, and the willingness of various individuals and groups to be measured.

In the reasonably foreseeable future, we should expect that, unless there is a major shift in governmental policies and their implementation, both the government's requirements for social information and management's willingness to provide funds and manpower to produce nonrequired information will increase. Improvements in techniques should be anticipated based on greater experience and research, thereby expanding the areas in which measurements are reasonable and practical. Public attitudes toward measurement likewise will probably become more relaxed, but almost surely at an uneven pace depending upon the subjects, measurement techniques, and types of individuals involved. Where unacceptable invasions of privacy would be a problem, reasonable information substitutions will be sought.

In total, changes should be expected that will result in basing the system on measurement to a far greater extent than will occur initially.

Information About Impacts on Quality of Life

The ideal system sets a tall order for itself—providing information about every impact that results from the interaction of every defined entity and the quality of life of every segment of society. Such an order demands comprehensiveness —the inclusion of all impacts, all actions, and all individuals or groups.

Comprehensiveness will require, in addition to the capability to measure an understanding of the cause/effect relationships that exist between business "actions," "impacts," "social conditions," "quality of life" characteristics, and "segments of society" that will be useful to those who produce the information and understandable by those who receive it.

Impacts of business actions on publics

If the ideal social measurement system is to measure all of the impacts of business actions on the quality of life of society, it will have to be capable of identifying (1) all the actions creating impacts, (2) all the impacts thus created, and (3) all those affected. Identifying which actions create social impacts is easy, for nearly all do so in some degree. Identifying the nature of the impacts and those affected is much more difficult.

In an ideal (perhaps an impossibly ideal) system, each business action would be identified and each of its consequences established individually. In a somewhat more realistic yet still ideal system, similar business actions would be grouped and all of their impacts would be identified in terms of all those affected. This would most likely be accomplished by means of an intensive and continuing program of research that would produce what might be called "impact sets." Under such a concept, business actions taken to engage members of the hard-core unemployed or that cause the discharge of pollutants into a river, for example, would have their respective impact sets, identifying the kinds of impacts that each created. These impact sets might be expected to be similar from company to company and over a period of time insofar as the nature of the impacts and the nature of those affected are concerned. This would enable individual companies to use them as starting points for making measurements of their own impacts.

The ideal system, it should be recalled, contemplates that measurements would be made of impacts on the quality of life of those affected. Impact sets would have to identify the consequences of business actions at a considerable level of abstraction to satisfy that requirement.

The initial system will differ substantially from the ideal. It will not measure everything but will be selective; it will normally not measure quality-of-life characteristics, but instead the social conditions that have an important bearing on them. It will make only limited and informal use of the idea of the impact set, and even then, in far less than a complete, carefully researched form.

Most would agree that what ultimately counts, and thus is most worth determining, is the impact that business actions have on the quality of life of individuals and groups of individuals. From a measurement point of view, this is extraordinarily difficult. Many quality-of-life characteristics are abstract and intangible and of a type that can only rarely be identified with a simple set of business actions. (See chapter 2, Exhibit 2-2.) In order to have a practical and pragmatically useful system, a substitute must be found. The substitute is the

set of *social conditions* that are considered to be of substantial importance in determining the quality of life of individuals and groups of individuals. They not only will form the basis for the initial system but also for those improvements in it that will be made in the foreseeable future. Measuring social conditions is not a complete substitute, of course, because such measurements do not by themselves indicate the effects that actually take place with respect to specific quality-of-life characteristics. That, however, is a study all of its own, of great complexity, and beyond the resources and capabilities of virtually all companies.

The use of social condition descriptions as a substitute for quality-of-life descriptions does not obviate the need to consider differences in publics, for the impacts of business actions do differ based on the publics involved and their constituent subdivisions. They differ on the basis of geography (as in the case of pollution), on the basis of age, race, or sex (as in the case of employment) and in many other ways as well. The initial system should recognize this fact, and future developments should do so more skillfully.

The attempt to measure *all* actions and impacts will also be abandoned. Instead, the initial system will concentrate on selected impacts on social conditions in areas of significant social concern. The impacts thus chosen will comprise what amounts to a set of indicators for all business actions.

Concentration on social conditions has important additional effects. It usually reduces the number of impacts to be considered and changes their character, that is, limits consideration to impacts that are more concrete and readily identifiable with the action that caused them. It also reduces the number of impacts that need to be traced into the more distant future and to their more distant constituencies.

Shifting to impacts on social conditions does not mean that problems of impact identification will disappear. A good deal of research still will be required and major problems will still remain. One involves the difficulty (some would say, the impossibility) of predicting the impact of far-reaching innovations, often scientific or technological in nature, for which history and existing knowledge provide uncertain bases for projection in an indeterminate world. A second arises in the case of long-delayed impacts that build up gradually and invisibly for a long time before exploding upon the scene. A third lies in the extraordinary complexity of social relationships, shifts in the values of society over time, and the manner in which society itself may react unpredictably to forces placed upon it.

Definitions

An ideal system would make extensive use of standard definitions, for they are essential to both the measurer and the user. Ideally, they would describe what is to be measured in such precise terms that all measurers would measure consistently at any moment and over time, no matter what the setting. Ideally, standard definitions also would describe what had been measured so that users

could fully understand the information produced, whether or not they had access to the measurers.

Given the imprecision of language and other problems, it will be impossible to develop standard definitions that will be uniformly interpreted and applied. Standard definitions, therefore, will be intended to promote rather than insure uniformity and to facilitate communication. By their availability and general acceptance, they should discourage the development of a variety of limited and private definitions that use the same or similar words, but with different meanings or shades of meanings.

Standard definitions are useful to measurers in almost direct relation to how well they set boundaries, that is, how clearly they delineate which or how much of an action, impact, public, or social condition is included and excluded. To delineate clearly, they need to reflect the nature of the actions, impacts, publics, and social conditions being measured; otherwise the definitions will need to be so heavily interpreted that inconsistencies will be sure to occur.

In an ideal system, standard definitions would be developed for the system as a whole in a way that would take into account not only the overall requirements of all areas being measured but also at least the major or unique requirements of the principal individual areas. Standard definitions would be developed for specific areas and would be consistent with the overall definitions or modified in a manner as nearly consistent with them as possible. And so, definitions would work their way down the hierarchy of areas and subareas of measurement.

The initial system will not have these characteristics. Standard definitions will have been established by a number of governmental departments and agencies for purposes of regulating industry or specifying the information it is required to submit. Usually, these definitions can be taken as standard for the area; given their purposes, they often will be rather precise and well adapted to the characteristics of the particular areas. They will not, however, be consistent across areas, nor will the nature of the differences have been identified. Outside of the regulated areas, standardization will fall off sharply.

In the initial system, there will be a tendency (1) to use the government's definitions in those areas for which they were developed, (2) to use governmentally established definitions, intact or with modification, in other places where they seem appropriate, (3) to seek out other definitions with substantial acceptance, and (4) to establish one's own definitions. Because of this lack of consistency, initial systems will have to make clear what definitions have been used.

In the foreseeable future, there will probably be gradual but spotty improvement in definitions, depending upon the effort put into their development, the authority of those promulgating them, and the willingness or unwillingness of those with legally established definitions to adopt different ones when they upset the time-series data they have acquired. Over the course of time, necessity should bring about substantial progress.

The Nature of the Measurements

Quantitative measurements

The definition of the ideal system included a number of characteristics pertaining to measurement. The first group specified that measurements should be expressed in quantitative terms that not only would be separately useful for the immediate purposes of the measurements but also would be in, or be converted to, a single common unit of measurement.

The objective of having quantitative measurements is not surprising. Quantitative data have a degree of precision and communicability that cannot be matched by words. Beyond that, quantitative data have the property of being capable of mathematical and statistical analysis, ranging from simple additions that obtain totals to sophisticated, multivariate analyses that explore relationships.

If measurement involved nothing but quantification, we would not have included a requirement for quantification in the ideal system. In *our* definition, "measurement" has been extended beyond its ordinary dictionary meaning to encompass verbal descriptions. Measurement, as we are using the term, includes narrative descriptions that are carefully prepared and that place items in useful categories and relationships.

This approach creates difficulties. However, they are far fewer than those that would result from requiring that all measurements either be in quantitative terms (no matter how forced or contrived the procedure) or else be omitted.

Quantification is the result of applying one or more counting or measuring systems. A brief description of those expected to be used in social measurement systems follows:

- "Nominal" systems are based on merely classifying impacts or effects—for example, classifying sulfur dioxide and particulate emissions as "pollutants," carbon dioxide and water vapor as "nonpollutants," and recording the quantity of each.
- "Ordinal" systems are based on the assignment of numbers in an order that has directional significance, with an item with a higher number indicating that it is better (or worse) than another with a lower number, but with the interval between the numbers not indicating the degree of difference—for example, a list of power plants arranged in the order in which they emit particulates.
- "Interval scales" are used in systems in which equal intervals between assigned numbers indicate equal differences in condition, in which there may be a somewhat arbitrarily set standard, but no zero point or absolute norm—for example, the difference (positive or negative) between the amount of particulates emitted by a power plant and governmental standards for all power plants.

- "Ratio scales" form a part of systems in which a natural zero point exists that permits the development of meaningful totals and ratios of absolute performance—for example, the absolute amount of particulates emitted per megawatt hour, compared to zero emissions.

Each of these systems produces different amounts and types of information. They produce data that are capable of different types of mathematical manipulations and result in quantitative information of substantially different value.

A still further kind of quantification exists that is of great importance in social measurement. It arises from the fact that measurements that are not themselves of "countable" things but instead are essentially subjective may nevertheless be assigned numerical values. "Excellent," "good," "fair," "poor," and "unacceptable" might, for example, be assigned a numerical scale running from 4 to 0, or from 5 to 1, or even from 100 to 0 with the levels of performance at which the various verbal descriptions were to take effect being established on an analytical or judgmental basis. This form of quantification will often be used when "soft" information, involving opinions, attitudes, and so forth, is developed. However, it will also appear in many of the "harder" areas as well, where physical characteristics predominate.

In total, therefore, we find that quantification is highly desirable, that all quantification is not equal, that the nature of the counting or measuring system employed has a good deal to do with the information to be conveyed, and that although quantification can be usefully applied to areas that are essentially subjective, their essentially subjective nature does not change. Finally, we can see that carefully prepared descriptions not only are essential in some areas but do not represent a major jump away from some of the less exact forms of quantification.

The second specification is that the quantitative data provide immediately useful measurements for the individual areas being measured. This is a desirable feature of all measurement systems. While it may be true that the greater productivity of a typing pool increased earnings per share by one-tenth of one cent, the more meaningful and useful information from the standpoint of the pool would be lines typed per person per month or some similar figure that took the nature of the operations of the department directly into account. Such information seems more real by relating the abstract to the concrete and the remote to the immediate and provides the kind of managerial data needed for planning and controlling operations.

The same is true for social information. If it is expressed in terms that are meaningful in relation to the area or function being measured, it will be far more immediately useful to those responsible for that unit than if it is expressed in terms of more abstract social measurement units. The number of minority employees hired, trained, or promoted, and numerical reductions in accidents arising out of an improvement in product safety or reductions in

pollutants all have greater meaning than their corresponding measurements expressed in terms of dollars or an abstract single measurement unit.

This is not to say that the latter measures are unimportant; they are important, and for many purposes. The problem is in developing them. By definition, the units that are most appropriate for the individual areas vary with the areas being measured. There is no way that number of employees or product-associated accidents or tons of pollutants can be added to or subtracted from each other so long as they remain in their own units. To move beyond that point—for example to arrive at a net position or a social performance index by quantitative methods—requires either that all measurements be made in the same unit or that they be capable of being converted to one. The single measurement unit used might be the dollar or might be an invented unit—say a social measurement utile or an SMU. It would be a most useful invention. However, many, including Professor Kenneth Arrow, who won a Nobel Prize in part for his work in this field, feel that using a single unit is either a logical or ethical impossibility. As the discussion in Appendix 2 indicates, the authors believe that, even if it were possible, it contains so many dangers that, at this stage, it would be unwise to attempt it.

The initial system will be an eclectic system, with some of the appearance of "catch-as-catch-can." It will use all of the different quantification systems as well as those that assign numerical values to subjective determinations. It will measure by means of verbal descriptions a substantial number of areas. The quantitative information usually will be "immediately useful"—expressed in terms or units that have local application. There will be very little use of a common unit even within an area. When the dollar is used for purposes of measurement, it will probably be because it is an immediate useful, natural unit.

The direction of progress over the foreseeable future is likewise indicated. There will be more and better quantitative measurements and more and better descriptions. Some descriptions will be completely replaced by quantitative data; other descriptions will consist of an increasingly quantitative mixture of words and numbers. Virtually all of the quantitative data will fall into the "immediately useful" category. There will be an increase in the use of common units within individual areas (such as, "employment") but very slow progress in applying common units to diverse areas like "employment and the community."

Professor Arrow's and other opinions to the contrary, an increasing number of attempts will be made to develop profiles of corporate performance that express the results of performance in individual areas in a common point system of some sort, arriving at a net evaluation. The American urge for arriving at the bottom line or performance rankings, and for designating winners and losers will bring this about in social measurement just as it has in such areas as financial measurement.

Companies will undoubtedly try to do this for internal management purposes in order to consolidate information and make it more readily grasped by its managers. They will not find this easy. They will often lack a useful standard of comparison. They will lack a basis for weighting, and the results will be to a great degree subjective.

Companies will rarely report such ratings externally but self-appointed rankers undoubtedly will make their own ratings and take steps to make them publicly available. Their rankings may or may not turn out to have merit, but the experience gained in attempts to make them so will benefit the systems and processes of social measurement.

Duration of impacts and timing of assessments

A second, important set of requirements relates to timing. The ideal system is to measure impacts for their duration and appropriately compensate for differences in timing.

The reason for measuring impacts for their duration is that corporate actions have vastly different impact patterns. Some are relatively short, others, relatively long. Some are immediate, while others are delayed. Some peak early, some in the middle, some near the end, while others are relatively flat with little or no variation throughout their duration.

To measure only the immediate impacts or the impacts occurring only in the period in which the action takes place would be misleading. It would place great emphasis on near-term benefits and disbenefits in the face of evidence that many matters of present social concern are the result of single actions that took place five, ten, twenty-five, or many more years ago, or, more likely, constitute the cumulative result of actions and impacts that have been taking place for a great many years. It would make certain actions and impacts appear to be more or less beneficial, or more or less harmful than is justified.

Making measurements of future impacts involves both practical and theoretical problems. The practical problems lie in the fact that while the action takes place in the present, the impacts occur in the future. Since they are *future* impacts, they are predictable only if historical knowledge is available and still appropriate or if science, psychology, sociology, or some other kind of knowledge provides a suitable basis for making a logical estimate. The reality, as frequently demonstrated by abandoned government programs or by research into past, present, and anticipated business-generated impacts, is that history is confusing and that accurate, logical speculations about the future are most difficult. Further, it should be noted that society itself keeps changing as different forces become weaker and stronger. Thus, the further one moves from the time of the action, the more difficult the determination of its impacts will be.

The second practical difficulty is that of conducting research over time. There are, for example, great problems in maintaining contacts with individuals. There are even greater problems in separating the continuing impacts of prior business

actions from those of newer actions and from the myriad other actions by which individuals are affected.

This is not to say that continuing effects cannot logically be expected and even proven to exist. (The value of training, for example, can be presumed to extend, to some degree, over a lifetime career.) The problem is measuring these impacts and doing so before or soon after those impacts occur, so that they can be related to the business action that caused them at or near the time the decision to take or continue the action occurs.

An important theoretical problem involved in measuring the future is whether future benefits or disbenefits should be reduced in proportion to the period of time that elapses before they occur. "Discounting" is the term used to describe this practice. It is a well-recognized economic technique; in one or another of its variations, it is frequently employed by companies to determine the relative profitability of investment opportunities with different flows of expenditure and income.

Discounting makes a very substantial difference as the following table will indicate.

	Present value of $1000 with an interest rate of			
Payable at the end of	10%	6%	3%	1%
10 years	$386	$558	$744	$905
20	149	312	554	820
50	9	54	228	608
100	*	3	52	370
200	*	*	3	137

* less than $1.

The table is expressed in dollars, but the numbers would be identical even if they were units of happiness, health, or SMUs.

At a discount rate of 10 percent, the value of an impact occurring 50 years later is less than 1 percent of what its value would have been if its occurrence had been immediate. Viewing the table from another perspective, one can see that, while a project discounted at 10 percent would be of little value with a payoff of 50 years, it would appear considerably more attractive if a rate of 1 percent were used.

Should discounting be applied in the social arena and, if so, what rate should be used? Should the same rate be employed to both corporate costs and public benefits/disbenefits? This is both an ethical question and an economic one.

It is an ethical question because the choice of rate of discount results in taking entirely different positions about the responsibility of one generation for

those which follow or even for children as compared to working adults or the elderly. The higher the discount rate, the shorter the period of responsibility.

Those few U.S. government departments that attempt to assign dollar values to project benefits usually use an economic rate to discount both the investment and expected returns.

Some of the international agencies take a different approach. The United Nations and some other funding agencies, faced with the need for at least partially recognizing timing differentials, yet not finding the economic rate of discount satisfactory, employ the notion of "rate of social discount" in many of their project evaluations. The rate(s) thus established are usually set considerably below the economic rate at some 1 percent to 3 percent. Of equal note is the fact that rates are set at different levels for different projects based on judgments of their intrinsic social worth. These social rates, and the higher rates used in evaluations of economically oriented projects, are normally reflected in the interest rates actually charged on project loans and in the scheduled dates of repayment.

Whether an economic rate of return should be used for expenditures and a social rate of return for benefits is another issue. Clearly, if the social consequences are identical, expenditures made at the lowest, economically discounted cost would be most desirable for they would be the most cost/effective. Such an approach is useful if a decision has been made that the benefit must be, or as a matter of policy, will be attained. When attaining such benefits is considered to be optional, *economic* logic would suggest that the same economic rate should be used to discount both the benefits and the expenditures. When a lower rate is used, it should be recognized for what it is—an ethical choice that will give greater weight to future social benefits and social disbenefits than the higher economic rate would do.

An alternate approach to this dilemma is to let the discount rate be an essential component of the decision maker's value structure, and thus to present the data without the application of any discount rate at all. Measurers would then report only the expected nature and timing of actions and impacts, and the decision maker would do his own discounting in accordance with whatever models he chose to use. This, of course, does not solve the economic/ethical dilemma; it merely passes it on.

The initial system will deal with these problems rather crudely. To a degree, this will be done by measuring the impact on conditions rather than on individuals or publics. This will mean that changes in conditions should be anticipated, as best one can, for their duration, but that estimating the impacts throughout their duration on individuals will not be attempted. In illustrative terms, this will mean that the impact of discharges of pollutants on the condition of the air might be determined for their duration, but that the impact of the polluted condition of the air on all those affected by that pollution would not be estimated for the entire duration of those effects, be that months, years, or generations.

Discounting will probably be handled in an ambivalent manner in most instances. Unless required, public information normally will be presented in an undiscounted form. On the other hand, for internal purposes, especially those involving decision making, discounting may be attempted or used, particularly in companies that employ discounting for other purposes. Whether benefits and disbenefits will be discounted at a social rate of discount will be a conscious choice reflecting the social philosophy of the company.

The practice outlined above with respect to discounting will probably continue into the foreseeable future, unless and until some general consensus develops, along with a mechanism for establishing a social discount rate outside of the company. Equally, it is expected that this practice will be somewhat more complex than many companies will elect to use initially.

Over the reasonably foreseeable future, the ability to estimate the impact of actions undoubtedly will increase considerably. There will be inaccuracies for the reasons cited, especially when the impact period is long. The ability to estimate the impacts made on segments of society is part of the larger problem of developing impact sets. Therefore, one would expect progress in this area to be substantially slower.

Direct measurement methods, without surrogates

A further specification of the ideal system is that it be capable of measuring the different elements of the business action/impact/public relationship by direct rather than indirect methods, and that it do so without the use of surrogate measures. The object of these specifications is to reduce the errors and risks of errors that arise when these alternatives are used.

A is a true surrogate for *B* if it acts just like *B*—in the same way, at the same time and to the same degree. If employee absenteeism (*A*) is intended to be a surrogate for employee satisfaction with working conditions (*B*), a change in *B* should signal a corresponding change in *A*. *A* also can stand as a surrogate for *B* if it moves in a known relationship to *B;* for example, absenteeism changes at one-half the rate. In each instance the crucial matter is that the surrogate, *B,* really be a substitute for the real thing, *A,* moving in a consistent manner and reflecting all of the characteristics of *A.*

Surrogates that fully qualify are not easy to find. They, like figures of speech, are almost certain to introduce elements of error. Their justification is pragmatic —the inaccuracies are not sufficient to offset the increase in timeliness or ease or cost of measurement that results or the possibility that measurement of "the real thing" may not be practical at all. The problems of measuring the feeling of cohesiveness existing in a community by obtaining citizen opinions on the subject or using such evidences of cohesiveness as active citizen participation in community affairs and attendance at community events illustrate the point.

An indirect method of measurement could also involve using an indirect technique even when the thing to be measured was the "real thing." A discus-

sion with an employee about his feelings of safety and danger at work would be a less direct technique than would be the direct measurement of safety and accident potential in the plant. A discussion with the employee's supervisor about the employee's feelings on this subject would be even less direct. Most indirect methods are employed when satisfactory direct methods have not been developed or are too time-consuming or expensive, or involve unacceptable invasions of privacy. The risk of error obviously rises when they are employed.

In the ideal system, surrogates and indirect methods would not be used. This will clearly not be the case with the initial system, where both—particularly surrogates—will be extensively employed.

The surrogates will be of several types:

1. Impacts on "conditions affecting publics" will be used as surrogates for impacts on the "quality of life of publics." This constitutes a massive use of the surrogate principle.
2. With some frequency, actions taken to change conditions or the immediate results of these actions will be used as surrogates for the changes made on the conditions themselves.
3. The use of *selected* action-impact-public (that is, condition) sets as indicators, in essence, makes them serve as surrogates for those sets that are not measured at all.
4. Surrogates likewise will be employed with frequency in the more limited sense of the term—as substitutes for specific actions, impacts, and conditions.

The initial system also will use indirect measurement methods when they are useful. It seems likely, however, that the use of surrogates of the types described above will often simplify the measurement process itself so that direct techniques of measurement can more often be used.

Improvements over the foreseeable future will be greatest in the area of surrogates. The authors expect those surrogates that relate to social conditions to improve, not to disappear, and that actions and the immediate results of actions will be used less extensively as the ability to report impacts on social conditions becomes greater. Indicators will continue to be the backbone of the system; with research and experience, they should become "more indicative." Finally, to the extent needed, surrogates will continue to be used—filling in for "the real thing" when that procedure is useful. Since they will often be based on substantial research and experience, there will be a greater degree of assurance that the surrogates used are appropriate.

Consistent application of measurements across entities and over time

It seems inevitable that the desire to aggregate and compare the social information of different companies and to make comparisons over time will increase, for

there are strong evidences of it already. "Snap shot" information about one company at a single point in time will undoubtedly be useful. It will not be as useful as that resulting from comparisons of one company over a period of years or comparisons with others in the industry or in the area. Further, while information about a company and its impacts will be useful, on other occasions there will be a desire to add together data about different companies to produce information about an industry grouping or geographical area or sociological stratum. Needless to say, a substantial degree of consistency, both among reporting units and over time, will be required if these things are to be feasible. While still far from perfect, it is consistency that gives national economic accounts, census figures, and financial statements a good deal of their value and meaning.

For consistent application of social measurement, agreement will be required on such matters as—

- Areas to be considered "social" or a basis for identifying them.
- The basis for distinguishing between "social" and "economic" or for making an appropriate overlap.
- Indicators of performance to be used.
- Terms and definitions.
- Measurement techniques that are capable of common application.
- Principles to be used in making measurements, including some very important ones involving accounting and economics.

A substantial amount of effort will be required to reach agreement on such points, and the absence of a central, final authorizing group will prove to be a stumbling block to reaching agreement, unless the government or some other generally accepted body fills that role. At least initially, a lack of relevant experience will slow down agreement except in selected areas such as those in which instructions have been issued by government departments and agencies.

In the initial system, we may expect a lack of agreement, in fact a diversity of practice regarding disclosure, except where the government has dictated the method to be followed or where one has been developed through leadership example or concentration in a few hands. (Such an agreement might, for example, begin to take shape through the efforts of the AICPA, leaders in other disciplines, and corporate executives.) Further, during this initial period when there is not only a lack of consensus but also inexperience and experimentation, consistency will deliberately be sacrificed in an effort, through exposure, to move toward procedures that will result in improved information.

In the reasonably foreseeable future, there should be substantial agreement on most of these matters. The principles, bases, techniques, and so forth, may still be far from perfect but, at least, there should be reasonable uniformity and consistency. Reference to agreed-on standards used in the preparation of published information (for example, governmentally established standards or standards

established by the AICPA or some joint body) may become the usual practice. Quite possibly, there also will be independent auditing for consistency with such standards.

Neutrality toward social objectives

Information that is "neutral toward social objectives" can be defined as information that is "factual, determined without relation to a particular set of social values, not intentionally biased, and prepared in a way that permits users to make their own social judgments." It is information intended to be used with equal facility for different purposes and by those holding different views.

Bias can enter the system in two ways: (1) subtly, through the unconscious biases of the system designer or measurer and (2) purposefully, through deliberate distortions. The two will be dealt with separately.

Subtle biases are unavoidable in any analytic system, for any design must reflect some pattern or framework. In addition, while the design presumably would be based on rational arguments, it would, in this country, nevertheless, be formulated in the context of western language and culture and a climate of political democracy and personal freedom that might well be rejected by persons accustomed to different thought modes, cultures, or institutions, within this country and outside of it.

Neutrality, therefore, must be regarded as a relative state. What neutrality means in this context is that the system is as independent as possible of any assumptions about a range of users' senses of values.

One difficulty encountered with complete neutrality is that it makes the system more difficult to use for decision making. It forces on users so many determinations of fact and so many choices that they run the danger of being overwhelmed. Ideally, the data would be neutral and be interpreted for individual users by the application of their particular scales of values. However, this presupposes both scales of values and the time and skill to make the interpretations—conditions that are more likely to exist in large companies, governments, and well-established organizations than in the case of smaller companies, individuals, and other user groups.

Purposeful biases likewise can be expected because entities typically will seek to put the best interpretation on a set of facts or to report facts selectively in the absence of conditions that effectively prevent doing so. The ideal system would require the absence of intentional or unintentional bias. Such as unbiased condition could emanate from either a managerial desire to be neutral, or rules, standards, procedures, audits, and penalties, that would tend to bring about this condition.

Realistically, there are psychological barriers to the full rather than selective development and disclosure of information for fear of adverse reactions. There exists both a lack of social or legal compulsion to be neutral and a tendency to treat social reporting as a public relations problem or, perhaps, opportunity.

The initial system will not be completely neutral—nor will it develop over the foreseeable future—for reasons imbedded in the system itself. The underlying reason is that the system opts for utility and practicability in the face of technical and economic obstacles to complete neutrality. The operational reasons are that the system employs a high degree of selection in choosing what will be reported and that it encourages companies to measure and report in the manner which is most "meaningful," even though that process contains obvious problems of bias. The mere process of selective measurement is bound to introduce some sort of bias. When, as has been suggested, selection is to be based in part on the use of "significant social concern" as a major criterion, bias is both assured and deliberate.

The counterforce, which will be present to some extent initially and can be expected to grow in the future, is the specification of areas of significant social concern and the information that should be reported about them by persons outside of the company. Some such specifications already have been made by the government. One would suspect that it might specify more. On the other hand, specification could be undertaken by official or unofficial organizations, with an appropriate membership. There is precedent for this approach in current experiments overseas that warrants close observation.

Such an approach would tend to reduce both the subtle and purposeful biases mentioned above. One still would have to expect that a fair amount of "public relations" would be present in at least the initial public reporting of social measurements, but hope that it would be reduced over time by the increased sophistication and distaste evidenced by readers, by professional and legal requirements for greater realism, and by a greater acceptance of the responsibility for reporting on the impacts of corporate actions on the part of business executives.

The initial system is expected to use a variety of measurements, avoiding attempts to use a single measurement unit which, while helpful for many purposes, conceals the measurer's scale of values. This approach permits users to apply their own scales of values, thereby removing sources of bias. In our opinion, the use of a diversity of units will continue for a long time. The use of common measurement units within individual areas will occur to a limited extent and will introduce some bias when it does, but it should be of minor importance and should be outweighed by the additional utility provided.

Bias is, of course, unavoidable when actual performance is related to some standard or relative basis of comparison. Such biases are well known and open; thus, they can be accommodated by making the nature, source, and authority of the comparative data known.

Minimal expenditures for measurement costs

The production of information is costly. Although costs can be reduced through various efficiences including automation, they can never reach zero. Ideally, the

costs would be negligible, but practically there is an optimization problem—to minimize total cost where the two components of cost are (1) cost of information and (2) cost due to *lack* of information (such as the costs inherent in wrong choices).

In order to meet the ideal system's requirement of minimal cost, we would require virtually cost-free systems for obtaining the original data and for its summarization and analysis, presentation, interpretation, and use.

In reality, none of these functions can now be performed at near-zero cost. There are differing opinions as to how inexpensive data production ever will be. Based on an extrapolation of past trends, the unit cost of data summarization, analysis, and presentation will continue to decline rapidly. However, much of the data, particularly on the impact side, may be dependent on interview or instrumentation and other processes that are far less subject to automation. Thus, the total costs of data collection and interpretation (as opposed to unit costs) may not decline but, in fact, increase as more and better information is desired or can be made available.

The cost of making measurements in the initial system will vary in accordance with the particular items selected for measurement and choices made as to surrogates, techniques, accuracy, and reliability. There will be numerous instances in which social measurers will be able to make substantial use of information that is available for other purposes, incurring only incremental costs to adapt it for social objectives. This is most likely to occur with respect to business actions and their immediate consequences. In other instances, particularly where impacts on social conditions are involved, the costs may be both new and fairly substantial. This will come about, in part, because these areas are complicated or require information that must be gathered outside the company. It also will be expensive because a learning process will be required, with all of the inefficiencies, false starts, setup costs, and experimentation that is involved.

It would seem almost a certainty that over the years the cost of producing the initial information will be reduced substantially, particularly in areas where the learning curve becomes effective. Whether this will be balanced or exceeded by desires for new information is hard to tell. One would not be wise to bet too much against this possibility. The total cost should, however, be far less than is required to operate financial and other operational systems, assuming reasonable restraints are used.

Using the Information

The final group of ideal conditions relates to how the information would be used. The information produced would, under ideal conditions, "permit both the entity and outsiders (1) to engage in efficient decision making, using sound economic planning and control procedures, (2) to evaluate an entity's past, present, and intended future actions, using both normative and nonnormative

bases of comparison, and (3) to continue, or if need be, to modify the entity's 'contract with society.' "

The usefulness of information produced by an ideal system would be derived from its ability (1) to facilitate the management process of planning and control and (2) to assist in assessing the acceptability of the entity's performance within the broader context of society. In the long run, both should be assumed to be uses from which the company and society benefit.

Management planning and control

Most management processes depend heavily on formal information systems once a company reaches a modest size. Not all the information desired about either the past or the future is available from these systems. And often, when it is available, it is not as accurate as desirable. Nor does the availability of information displace judgment. But it is unthinkable that management today could operate in anything like its present manner without a substantial amount of highly relevant information. Some of this information is financial and some nonfinancial; most is operational in the more conventional definition of that term; and, a minor amount relates to what might be described as essentially social.

In an ideal system, the quantity and quality of social information would be improved. It would more usefully show the benefits and disbenefits of different corporate actions. It would reveal how those benefits and disbenefits change as business actions are altered. It would produce comparisons of various kinds of benefits and disbenefits so that they can be traded off against each other and against their economic costs. It would facilitate using not only the basic approach associated with cost/benefit and cost/effectiveness analysis but other sophisticated techniques as well. Finally, it would permit results to be monitored so that earlier decisions could be altered or implemented more effectively.

Since none of these objectives can be completely accomplished in the operational area by using financial and operational information that has been in the process of development for many years, it should come as no surprise that the initial social information system will produce information falling far short of this ideal. There is no point in repeating the previous discussion about gaps and inaccuracies. Likewise, little needs to be said to the effect that, given the previous paucity of information and the probability of substantial improvement in both quantity and quality, social information should prove to be far more useful in the future than it has been, particularly if it is melded in with other financial and operational information in the processes of management.

What is worthy of comment are some limitations that are inherent in the system, and thus will exist for a long time, if not forever. They arise out of the use of a variety of units of measure that are not convertible into dollars or another common socioeconomic unit. The use of a variety of "social" units makes it impossible to add, net, or otherwise compare different social benefits and disbenefits mathematically. The inability to express economic results in the same

terms as social results (even though economic results are considered by many to be one form of "social" results) further limits the mathematical possibilities. Executives will be forced to assign their own values and to make whatever intuitive judgments or mental calculations they desire. Thus, the information is useful but by no means as useful as it might be under more favorable circumstances.

The possibility of using a common unit of measurement for different impacts falling within a closely related area is still to be explored. It seems to hold some promise, and, to the extent that this advance proves to be possible, a closer approach to mathematical analysis, cost/benefit, and cost/effectiveness studies will also be possible. Its application, however, will be limited, thus reducing its potential advantage over more intuitive approaches.

In short, the greatest possibility for the foreseeable future seems to lie in the support that better information can provide to planning and control processes which are essentially judgmental in nature.

Evaluating corporate performance in a societal context

The second attribute accorded to social information is a significant role in evaluating corporate performance in a broader context. It was suggested that both corporate management and outsiders (the government, general public, separately identifiable publics, or individuals) would use this information to evaluate their satisfaction with all or parts of a company's relationships with those impacted by the company's actions. Finally, it was noted that the ideal system would employ comparisons to standards, to plans, to past performance, and to other companies for that purpose. The obvious but unstated end result would be that, under certain conditions, changes would be made at the initiative of management, those groups affected, or the government.

This is not a completely illusory ideal for, in some areas, it occurs at present. With recent legislation and regulation in such areas as employment, the environment, product safety, and certain aspects of consumerism, evaluations have been increasing rapidly. General and special-purpose social reports thus would serve in roughly the same role with respect to social matters as financial reports do in the economic arena. In their most useful form, they would provide information on past, present, and future actions.

In the initial system, only the broadest of overall corporate performance evaluations will be possible; however, in certain specific areas, especially those subject to government reporting (such as, pollution, employment, job safety, and product safety) where more comprehensive, specified information and more skilled evaluators are present, at least partially successful evaluations can be made.

A continuing improvement in information, presentation, and understanding would seem to be a reasonable expectation. Thus, over time, there should be a broadened coverage of impacts, with better measurement techniques, allowing a better but still approximate overall evaluation of the company and, more im-

portant, of its performance in specific areas. Evaluators will be considerably more experienced and skillful, thereby raising the general quality of their evaluations. As forecasting techniques improve, and greater understanding is gained of social cause and effect relationships, it should be possible to incorporate a moderately large component of forecast information into the overall evaluation process.

Relative or nonnormative standards

As in the case of all evaluations, bases of comparison are essential. They serve as relative or absolute standards of performance against which the adequacy of actual performance can be judged.

Relative standards of performance do not rely on the establishment of norms. They rely instead on comparisons of a company's present performance with its prior performance and its performance as measured against the actual performance of other companies in its industry, its geographical area, or in unrelated areas or industries.

Of course, for comparisons to be valid, they must use comparable data about comparable situations. This implies, on the one hand, a consistency of measurement practices and, on the other, either a high degree of correlation between the characteristics of the entities being compared or a valid method of adjusting for the differences. As such, comparisons of social performance are in principle no different from other kinds of comparisons. In practice, however, the lack of standard measurement methodologies and reporting practices often will make measurements not comparable between entities. Additionally, the nature and extent of the adjustments that should be made will be unclear.

Therefore, most comparisons initially will be made with a company's own historical data, except in areas where comparable data specified by the government are available. Most intercompany comparisons are likely to result from studies by outside groups, such as the government or private organizations such as the Council on Economic Priorities. This information, though based to a large degree on estimates rather than precise measures, will often be arguable but usually will be useful.

In the foreseeable future, there should be a considerable increase in the amount of comparative, quantitative data. Historical data comparing the past, present, and planned performance of the reporting entity should be increasingly available. Intra-industry comparisons should be common, and based on much better data. Interindustry comparisons will be less frequent, except when common characteristics exist between industries, as, for example, banking and insurance.

Absolute or normative standards

Absolute standards, based on norms, supply a basis of comparison with what should have taken place. While they may consider what has been accomplished, they give primary consideration to other criteria indicating what should have been attained.

There are obvious problems with the use of norms. Who will establish them? On what basis can they be justified? Can they be established without reflecting a scale of values that biases the system? What influence will economic considerations be accorded? How will users react as to their validity? Will they aid or hinder decision-making processes?

By definition, norms reflect a scale of values and thus cannot be neutral. They can perhaps be neutral insofar as a company is concerned because they are established by the government or some external organization, but that does not mean they are truly neutral. They can be used in a manner which allows others to substitute different standards and by permitting multiple evaluations, at least partially, to offset the bias of a particular set of norms. They can be of considerable assistance to those who agree with the particular norms that are used by carrying information beyond the stage of unevaluated data to include an evaluation of performance. (Conversely, they can create problems for those whose norms are different.) If companies publicly report performance in sensitive and controversial areas, they may find themselves facing problems that arise as much from public disclosure of their norms as from their actual performance. In short, there are pros and cons, advantages and problems in using norms.

In the initial system, most norms will probably be used internally. Some of them will be developed within the company, but others will originate with the government or other external organizations. Some will be developed on the basis of the "fair share principle," as in relations with the host community. Others may use comparisons with "state of the art" technology or a modification of that general approach. Still others may use as a norm what is really a level of comparative performance, as such "the performance of the company at the bottom of the top quartile." Others may reflect what a "group of eminent citizens" considers to be a reasonable norm. Norms of these types will be imprecise and often questionable on technical or ethical grounds, but they will no doubt be used. They will frequently be described as goals. Norms will be disclosed externally, when this is required or the company considers it desirable to do so. Their internal use as an aid to corporate management should, however, be greater.

In the long run, there is likely to be a proliferation of externally established norms as a consequence of governmental regulation, common usage, or an authoritatively established consensus about the method for establishing a "legitimate" norm. Both internal and external use almost surely will increase accordingly.

Assessment of Corporate Performance in Relation to its Social Context

Under one generally held view, companies have an implicit contractual relationship with society, under which society permits a company a range of free

choice to pursue private goals in return for a generally positive contribution to society as a whole. This is the notion of the social contract. The social contract is embodied, in part, in the legal or moral framework in which a company operates and in part in an intangible, frequently unarticulated, set of political, moral, and cultural forces that supplement the law and have de facto validity in defining the social contract. Whether these forces are internal or external, they act to place the entity in the equivalent of a field of magnetic forces. Many recent events emphasize the fact that companies need to be responsive to extralegal, social forces. Decision makers recognize the validity of these forces if for no other reason than fear that the legal embodiment of spurned, but valid, demands is likely to be retributive.

An ideal system clearly would contribute to the procedure by which society can examine its contractual and quasi-contractual relations with an entity and vice versa and, in an informed manner, attempt to bring about those changes it feels are necessary. This process requires information for, and decisions by, both sides.

Such a requirement implies that the information is reliable and understandable to its users, and that it covers the various aspects of the subject adequately. It should possess adequate neutrality and freedom from the bias of a particular set of values or goals. Timeliness and comparability are also necessary.

More specifically, this requirement implies that social measurement information will be presented in such a way as to facilitate comparison with standards and norms. It also implies a sufficient level of detail to permit the introduction of rationally determined changes (both between the entity and society and within the entity) and to evaluate the results of change. As we have seen, however, there must be limits to our expectations, particularly where scales of values are involved. And thus, no matter how high may be the quality of social accounting information about selected actions and impacts, the impossibility of the single measurement unit makes it certain that social data alone can never replace the political process as the ultimate arbiter of social choice. Social measurement can do no more than provide reasonably useful information as input to the political process. In order for this requirement to be met, it will be necessary to have general acceptance of the results of social measurement. It also will be necessary to have political, social, or economic mechanisms to effect the desired adjustments and some general agreement about the relative weights to be accorded to economic versus social objectives.

In early years, there will be little or no comparability, verification, or objectivity, and few common standards except in a limited number of selected areas, primarily those that are subject to governmental regulation. Social information initially will be of limited use in social decision making outside of these areas. Its use may be far greater internally as managements examine their companies' performances or provide information in response to the specific requests of governments and others. Many companies will furnish social information externally in fairly unstructured ways at the outset. However, even the existence of

such information should cause a greater awareness on the part of decision makers of the necessity for using this type of information in their decision processes. Limited as it may be at the outset, this information should begin to have beneficial effects for both business and society in their attempts to reach appropriate conclusions.

Over a longer time horizon, one can visualize a situation in which most major entities will provide information about broadly defined significant types of impacts in conformity with common standards, in a way that permits interperiod, intercompany, interindustry, and normative comparisons, as well as direct entry into the input/output matrix of social effects. This reporting should prove highly useful to the overall social decision-making process, and, at least in theory, can be expected to result in significantly improved social decisions.

appendix two | Single-Unit Measurement

Although this book frequently describes the use of one measurement unit as a desirable characteristic of the ideal social measurement system, the authors have essentially abandoned the possibility of achieving it in the immediate future and foresee only limited progress in that direction over the next twenty-five years. Instead, the authors opt for a system that uses a variety of forms of description and a variety of measurement units.

This may seem to be too facile an abandonment of the discipline of accounting and other formal systems, especially to more financially oriented readers. This appendix therefore will be devoted to a further discussion of several of the problems involved in systems that employ a single financial or nonfinancial unit of measure, using a typical set of corporate actions and impacts as the basis of discussion.[1]

Let us start by looking at a typical problem. Suppose that one wishes to obtain information about the social satisfactions or benefits derived from the following corporate actions:

- Making the company's recreational facilities available to the surrounding community for three hours each evening.
- Reducing the noise level inside the plant by 10 percent.
- Providing open dating and nutritional information by means of a new form of labeling for its food products.

What can a company determine about these actions and impacts? How can it describe them? What are the problems of measuring them in common terms?

[1] This appendix is something of a primer on a very complicated subject many scholars have studied. For a more extensive and sophisticated treatment, the reader may wish to refer to the following works:

(1) *Games and Decisions*, R. Duncan Luce and Howard Raiffa. John Wiley & Sons, Inc., 1957.

(2) *Multiple Criteria Decision Making*, edited by James L. Cochrane and Milan Zeleny. University of South Carolina Press, 1973.

(3) *Decisions with Multiple Objectives*, Ralph Keeney and Howard Raiffa. John Wiley & Sons, Inc., 1976.

Information about costs, actions, and direct results

First, the company should be able to do an adequate job in (1) identifying the specific actions taken to bring these changes about, (2) determining the costs thereby incurred, and (3) describing the specific results that occurred in physical terms. For example, the company should be able to establish that it spent $50,000 to employ five people and to provide light and heat and otherwise make available a gymnasium, swimming pool, and playground for three hours each evening. The same should be possible for the other two projects. Costs could be described in common terms—the dollar—in each instance. It would not be practical, however, to describe the physical or social changes made or the changes in or new characteristics of conditions in terms of a single, common unit.

Information about impacts

The second class of information the company could obtain or attempt to obtain would be the impact of these actions on those who are affected by them. Of course, there are problems involved in identifying just who is affected by actions and of getting those affected to be willing to provide the desired information, but let us assume these are not problems in order to concentrate on the issue of the single unit. What can be learned? With some effort, the numbers and characteristics of those who were to some extent affected could be established. And to a lesser degree, the nature and extent of the changes that occurred in some aspects of their behavior and, to an even smaller degree, in the nature and extent of the changes brought about in the physical and/or mental well-being of those affected can be identified.

For example—assuming cooperation—information could be obtained about the age, sex, income, and so forth of those using the company's recreational facilities; the frequency of use; their prior uses of equivalent time; and, perhaps, if the use were accompanied with efforts to improve physical fitness, some evidence about the change in their physical condition. There would also be a substantial opportunity to describe those affected by the noise reduction (since they would be employees) and to establish some of the direct and indirect effects that, at least in part, arose from the change in the noise level. Information might also be obtained as to longer-range effects on the physical and mental well-being of those most affected, although a considerable period might elapse before it could be determined. As to open dating, although the information would be somewhat harder to obtain because of the number, diversity, and wide geographical dispersion of the customers, and less conclusive once it had been obtained, a great deal could be learned about customers and their behavior when open dating and nutritional information were available.

In all three cases, those persons affected would no doubt be described by the use of somewhat common or overlapping characteristics. However, the effects of

the company's actions would be described in completely different terms, varying from hours of play and physical and mental well-being to purchasing decisions and changes in eating habits.

Suppose we tried to express these effects or the value of these effects in a *common* unit to arrive at the total impact of the company's action and/or the relative impact made by different actions on different people or groups of people. To do this is not an easy matter, for the recipient does not draw a check in dollars or in social measurement units (SMUs) that indicates, let alone proves, their value. The only way to approach this would be to use indirect means.

Expressing Social Values in Monetary Terms

One of the indirect methods for quantifying social values involves expressing them in monetary terms. This could be done in several ways. First, one could look for "shadow prices," which are prices actually charged for the same or roughly similar commercially offered services (such as using the charge for using private tennis courts to indicate the value of using the company's recreational tennis facilities). Values could also be inferred less directly by, for example, using the time and cost of getting to and using a distant public swimming pool to indicate the dollar value to attach to the use of the company's pool. Second, one could ask those affected how much they would be *willing* to pay for a service, or how much more or less attractive they would find a feature for which they would not have to pay (e.g., noise reduction) than for some other feature (e.g., an additional fifteen-minute break) which had a rather readily definable monetary value. A further variation on this approach, obviously, would be to attempt to find out how much use or attractiveness would be associated with different, more or less arbitrarily established, values—such as a charge of $1, $2, or $5 for the use of a swimming pool.

This approach has a well-defined appeal. Everyone knows what a dollar is. It is a standard unit that can be added, subtracted, and otherwise summarized and analyzed mathematically. A dollar is a dollar. Or is it? Is a dollar which is $1 out of $500, the same as $1 out of $5,000 or $50,000 or $500,000? Is a dollar of the same value in families with identical incomes of, say, $5,000 but with substantial differences in family size or in some other important aspect? Are 1965 and 1975 dollars of equal value? Clearly, there are problems in treating all dollars as equal or in knowing how to equate them on a basis that is "socially sound" without introducing the philosophy and biases of both the measurer and the measured.

There is also another problem. There are a number of aspects of life that people are not used to thinking about in terms of dollars—the value of a blue sky

or a child's health, for example. Estimates, even if they have the appearance of preciseness, would be far from accurate.

Finally, one should note that, as in all cases where no payment is actually made, it is hard to tell what would actually occur if a payment should actually be required. In fact, both social and commercial (market) research studies indicate that real and theoretical actions might be substantially different.

Expressing Social Values in SMUs

Suppose that one prefers not to try to measure social values in terms of dollars, but instead prefers to use a nonfinancial unit, such as an SMU. This would free the measurement system from the notion that all human values can be equated with money and thus might appeal to many people on philosophical grounds. Additionally, it would have the technical advantage of eliminating an extraneous factor that could affect the measurements in unknown ways in situations where money need not be considered in order to make a social ranking or social choice.

The advantages of such a neutral, although artificial, unit would be quite real. The main problem, however, is inherent in its cure. How would an SMU be defined? What would be its point of reference? What would be the nature of an SMU that could accommodate all the different kinds and amounts of impacts arising from all the kinds and numbers of actions affecting all the people affected? Merely attempting to construct an SMU that could appropriately measure the satisfactions derived from each of these three actions demonstrates the difficulty of the problem.

A second problem with the nonfinancial SMU is that a way must be found to convert those items that are initially measured in dollars (for example, employee wages) into SMU terms. Thus, it would be necessary to develop conversion factors for items whose value would vary substantially in the hands of different individuals for reasons cited earlier. The dollar problem, although reduced, would not disappear.

Conversion factors

If, as seems extremely likely, the initial social measurements are in a variety of terms that are appropriate to the actions, impacts, and publics being measured (rather than in terms of a monetary or nonmonetary SMU), there still remains the problem of converting these "natural" measurements into a single SMU by the use of conversion factors. The separately measured benefits for recreational use, noise reduction, and improved labeling might be converted into a single unit.

Natural units	*Relating to*	*Conversion factor*	*SMU units*
10a	Recreational benefits	a/x	? SMUs
30b	Noise reduction	b/y	? SMUs
100c	Labeling	c/z	? SMUs

The problem is now obvious—establishing x, y, and z requires that many of the same difficulties be dealt with that are involved in direct measurement in terms of SMUs. Using a, b, and c simplifies the initial collection of data, since those who are to supply it will not have to understand such esoteric matters as SMUs. It leaves the problem of developing conversion factors in the, presumably, more sophisticated hands of the social measurer.

That may be an illusion. Unless social measurers are prepared to let their own scales of values or those given to them by their superiors dictate the conversion factors, they will find that the problem has not changed all that much. That is, if they wish to establish conversion factors that reflect the values of the people actually affected, they will still have to determine what the impacts are or are perceived to be by those individuals. And since (1) the impacts can be expected to differ considerably for people in different situations and (2) it is desirable to permit social diversity, measurers will need to develop statistically valid, weighted *profiles* of preferences rather than a simple average. And even then, many of the measurement problems will remain.

The political process

The complexity of the conversion factors themselves and the variations that occur from situation to situation will result in "hiding" so much from readers that they will have great difficulty in understanding what they are seeing. Further, users will not have a chance, on the one hand, to see if they agree with the conversion values, or, on the other, to substitute their own.

And if one is unable to substitute his own scale of values—so the argument runs—then the political process cannot have an opportunity to work. Public opinion will be excessively influenced by the scale of values imposed by those who determine the conversion factors, and the direct political actions of government will be similarly affected. Thus, the argument continues, data should be furnished in natural terms rather than financial or nonfinancial SMUs so that its users can make up their own minds about its meaning and value.

appendix three | Accounting Principles and Social Measurement

In spite of the difficulty (in some cases, impossibility) of measuring many social investments, costs, benefits, and disbenefits in financial terms, financial information will play an important role in social measurement. Measurements in financial terms will often be both practical and useful; in fact, on numerous occasions, they may provide the only reasonably practical social measurements. Thus, the accounting principles that underlie social measurements of a financial nature are important.

Some Questions and Tentative Answers

Is there a single set of accounting principles appropriate for financially oriented social measurements? How are they related to the generally accepted accounting principles that are applicable to the financial statements on which certified public accountants express their opinion? Will the same principles necessarily be used to develop financial data for special reports for limited, informed audiences as are used for the general public? If not, how will they differ? There are no authoritative answers to these and similar questions, but logical responses do exist.

First, one can safely predict that the accounting principles employed in making social measurements for special-purpose studies and reports, destined for use by such limited and informed audiences as corporate executives and regulatory staffs, will, on occasion, differ from those that are used in reports destined for broader, perhaps less informed, audiences. In fact, the nature of the differences may also be predicted, for the accounting principles employed in such special studies will tend to parallel the principles of economic analysis (such as, discounting, opportunity costing, and the determination of incremental costs and results) that normally characterize evaluations of proposed capital expenditures, mergers and acquisitions, research expenditures, and similar economic investment opportunities.

A second reasonable conclusion is that, unless the generally accepted accounting principles (GAAP) used in preparing the financial statements covered by a CPA's opinion are also used in developing social measurements of a financial nature that form part of, or are to be read in conjunction with, the financial statements, the reader should be made aware of that fact. Such a situation may be expected to occur when data developed in accordance with GAAP would not clearly communicate the appropriate social information or, worse, would be misleading. On such occasions, assuming the amounts were significant, the nature of the different accounting principles and the effect of using them would be disclosed, even when the method of computing the social data was specified by the government or some other external source.

The desirability of having social and financial data on a common basis or of suitably explaining the differences is obvious when the social data (such as data on capital expenditures for pollution control equipment) are presented in financial terms that will be compared with other data (such as total capital expenditures) set forth in similar terms elsewhere in the statements. Equally obvious is the need to calculate financial and nonfinancial data pertaining to social matters on the same basis when the two sets of data are to be compared (for example, when the reduction in pollutants in tons is to be compared to related dollar capital expenditures). And finally, for the sake of consistency, a somewhat weaker case can be made for preparing nonfinancial social data on the same basis as financial data, even when direct comparisons are not intended or even practical. The desirability of using the accounting principles employed in preparing the financial statements, except when they result in information that is not properly communicative, lies in (1) the nature of the reader's presumed primary interest and (2) the general acceptability of the accounting principles used in the preparation of the financial statements for a variety of purposes.

A third conclusion is that, when social information of a financial nature is not intended to be, and cannot reasonably be expected to be, associated with information in audited financial statements—and yet is not restricted to a limited audience—considerably greater freedom is possible. This situation might exist, for example, in the case of a separate social report, presumably of considerable length, in which not only the data but also the principles underlying their preparation would be disclosed. In this instance, at least at the present time, there would be considerable advantage to choosing the basis of calculation believed to be the most appropriate and then disclosing the basis selected, even when that basis does not agree with the set of generally accepted accounting principles used in the company's financial statements. As a matter of fact, the converse also is true. Consideration should be given to the extent of the intended differences from GAAP in deciding where social information should be presented. The proper communication of meaningful information is, after all, the main objective.

The Value of Generally Accepted Accounting Principles to the Social Measurer

When an auditor renders an unqualified opinion on a set of financial statements, those statements can be considered to have been prepared in accordance with generally accepted accounting principles. This enables the social measurer to rely on the fact that the financial effects of the many transactions entered into by the company throughout the year have been classified, summarized, and reported in a logical, consistent, and generally accepted manner. Thus, the social measurer can look to the company's annual reports and its underlying records for substantial guidance or, more likely, for conclusive evidence as to how and when specific transactions should be recorded. For example, they will indicate how to distinguish between operating expenses and capital assets, between the legally required and the voluntary, between intention and commitment, between actual and contingent liabilities, intended expenditures, and other degrees of obligation. In another area, they will provide specific methods for calculating and handling the investment credit and other incentives or cost recoveries. Even when the social measurer wishes consciously to alter the data, a firm starting point will be available.

The social measurer can also look to the audited financial statements for condensed, summarized information about total assets, liabilities, income, and expenses, as they result from the application of GAAP. Although these totals will usually not be directly useful in their highly summarized form (but will need to be broken down, analyzed, reallocated, or otherwise modified to meet the social measurer's needs) they will provide a most useful anchor for his work.

There is no point in attempting to delve very deeply into generally accepted accounting principles in this book. There is, however, considerable merit in exploring the kinds of calculations, allocations, and analyses of financial data that the social measurer will probably be called upon to make. Some of them will be complex in both a theoretical and analytical sense whether they fall within the general framework of GAAP or not. Some of the problems encountered and the better solutions will, therefore, be discussed—first as they relate to GAAP based statements and then as they relate to special-purpose reports.

Capital Expenditures

Suppose that a piece of equipment is purchased whose *sole* objective is to produce social benefits by reducing pollution. Suppose, further, that its useful life is expected to be ten years and, thus, that it clearly qualifies as a capital expenditure. On what basis should its cost be computed for purposes of social

measurement? In this case, the total cost as determined for purposes of the company's financial statements would seem to be appropriate. The capital cost would be the purchase price plus whatever freight, installation, and other overheads were capitalized by the company for purposes of public reporting. There would be no need to separate "social cost" from total cost since the item's sole objective is, by definition, social.

Now, take the more complex situation that arises when the equipment purchased is designed to reduce some form of pollution or accident rate or to accomplish some other social objective while, at the same time, producing power or metal stampings or refining petroleum. The problem, for purposes of social measurement, then becomes one of allocating the total cost between two components. Assume that the specifications or features of the equipment designed to achieve social objectives can be identified. What is their cost? Is it the difference between the prices of the machine with and without the social features? Presumably, yes; it is the marginal or incremental cost of the equipment to the purchaser. If the machine is sold with and without the social features, this cost can easily be established by the purchaser as the difference between the two selling prices. If it is sold only with the social features or manufactured to order, the amount of the difference will not be evident. The incremental cost to the purchaser will have to be furnished by the manufacturer or estimated by the company itself or its engineering consultants. Suppose the manufacturer furnishes this information. In the absence of regularly quoted differences in sales prices, how would the computation be made? Probably, unless the cost of the social feature is minimal, by assigning to the social feature its full share of direct labor and material costs, overheads, general expenses, taxes, and profits.

This method of allocating capital costs seems quite reasonable for purchased items. With suitable modifications to reflect the particular company's capitalization policies, it can also be applied to the different elements of cost (but not profit) incurred on construction undertaken by the company's own personnel.

The result should, in all cases, be data that can be used in annual reports to shareholders, in reports to such outsiders as governmental agencies, and for a variety of internal purposes. A readily understandable explanation of the method of computation could be provided when that seemed desirable. If need be, external assurance could probably be obtained.

In each instance, the company might also receive one or more partial recoveries for its outlays. What, then, is the social cost? In the opinion of the authors, the capital cost for social measurement purposes should be considered to be the gross cost, without reduction for the investment tax credit, other purchase incentives, or governmental subsidies. The gross cost before offsets should be chosen because it represents the total cost incurred to achieve the social objectives, even though it was paid for only in part by the company. The cost to the company would normally also be considered significant. It would be disclosed by showing either the cost offsets received or both the gross and net costs. When the offsets are large, an indication might also be given as to how

they are to be handled in the company's financial statements, since the various possible alternatives can affect quite differently not only the balance sheet but also current and future years' costs and profits.

Other situations involving capital assets arise. At times, the achievement of social objectives can require either the complete abandonment of specific capital assets or a reduction in their productive capacity. What kinds of financial measurements are justified under these circumstances? And why?

The first of these situations—complete abandonment—clearly involves a loss in capital asset value. It is sufficiently different from the capital expenditures previously discussed to warrant being identified separately. Under GAAP, such a loss would normally be computed as equal to the undepreciated cost of the abandoned item, as computed for financial reporting purposes. It presumably would be shown at that amount for purposes of social measurement too; although, it might well be accompanied by such other information as its appraised value or lost "opportunity" profits when the amounts were significant.

Handling the loss in productive capacity is a bit more complicated. When new productive capacity is built to replace that lost, the cost of the new capacity would seem to constitute a socially relevant capital expenditure cost. If the capacity were not replaced and the old plant continued to operate, but at a lower rate of production, an increase in depreciation expenses per unit of production would result. This would probably be treated as an increase in operating costs rather than an additional element of capital costs. However, there would be no harm in disclosing the reduction in productive capacity and its attendant social cost.

There are other questions involving the application of accounting principles to capital expenditures that have not been discussed, but at least the general approach should be discernible from the foregoing comments.

In addition, there are more fundamental questions that have accounting overtones. Some of these questions and a few suggestions for handling them follow.

1. *What basic approach should be used to distinguish a "social feature"—what is the standard or basis of comparison?* The unvarnished truth is that no one can fully distinguish what is "social." However, once that fundamental fact is accepted, a number of decision bases can be chosen depending upon what information is desired. When the information is intended to show expenditures made to improve the company's future social performance, a base date could be selected, with the specifications of the company's equipment on that date providing the basis of comparison. Alternatively, when the purpose is to show only those improvements that enable the company to move beyond the best available technology on a given past date, those specifications could provide the standard. When the company desires to identify those expenditures that permit it to exceed prevailing government standards, the

specifications could be altered accordingly. Or when the company desires to identify expenditures made for essentially aesthetic purposes, it could use as a basis of comparison either the special requirements of building codes and other public laws or the opinion of experts, or both. These and other approaches all provide useful information. The essential point is to describe the information correctly and apply appropriate accounting techniques to calculate it.

2. *To what extent should capital expenditures of prior years be analyzed to develop the cost of the "social features" they include?* This is a common question. It arises out of the fact that almost every company's plants and equipment have been acquired at different times and thus meet different environmental, safety, and other specifications. The desirability of making such an analysis depends on the purposes intended. If the information is to show cumulative capital expenditures for a particular purpose (or their undepreciated balance), such an analysis will be essential. If the purpose is to determine the current year's expenditures, such an analysis will be irrelevant. There is, however, nothing intrinsically "wrong" with establishing prior years' costs and, often, much will be gained by doing so.
3. *What alternative sources exist for establishing the cost of a social feature when the manufacturer cannot or will not estimate its cost in the manner described above?* The purchaser's engineers or engineering consultants would appear to provide the most likely alternatives. Since they will lack much of the factual data that is available to the manufacturer, they will have to make what appears to them to be a logical estimate.

Revenues and Expenses

In earlier comments, brief mention was made of the role of GAAP with respect to operating revenues and expenses. GAAP, it was noted, exercises considerable influence over the total amount of expenses (and revenues) recorded through (1) its direct concern with establishing the amounts of individual expenses and revenues, (2) its influence on the year in which each is recorded, and (3) its requirement that, where they are related, both be reported in the same set of accounts.

It was noted above that published financial statements usually present information about revenues and expenses in a highly summarized fashion. The social measurer will normally find that the information shown in these statements is useful only in establishing the totals of the revenues and expenses to be dealt with, and that further analyses, allocations, and other modifications are needed to produce the social information required. For this purpose, GAAP is of limited value. However, the social measurer is able to turn to cost accounting principles and practices for guidance. These, by and large, permit considerable

freedom so long as logical and consistent practices are followed to prevent important omissions or double counting. Most of the cost accounting analyses and allocations will not present difficult problems of principle. A few are, for the least, interesting if not controversial; they will be discussed in the following paragraphs.

Normally, social costs should be so computed as to include not only the directly variable expenses associated with a particular action but also a fair share of fixed and period costs and general and administrative expenses. If the social costs relate to one-time, temporary, or short-term efforts having little or no effect on overhead costs, the allocation of indirect expenses and general overheads should reflect that fact and be relatively small if not nonexistent. However, where continuing efforts are involved and a permanent change in indirect expenses and overheads may reasonably be expected, allocations on a full-cost basis would seem to be more appropriate.

What is to be done about interest on funds invested in fixed and other assets with social objectives and with depreciation? Various treatments are possible. The authors suggest that social costs normally be computed so as to include depreciation expense but not interest. This suggestion is, in some respects, controversial. Those who would exclude depreciation believe (1) that an element of double counting exists when both capital expenditures and depreciation are reported and (2) that, as the years pass, depreciation expenses will come to apply to features and objectives that have become so "normal" that society no longer considers them to be "social." Those who prefer to include depreciation believe (1) that information as to both capital expenditures and depreciation are useful and can be presented clearly enough so as not to be misleading and (2) that the problem of deciding when to cease considering expenses as "social" applies not only to depreciation but to power, maintenance, payroll, insurance, and other costs associated with operating the depreciable item as well.

The question of including or excluding interest revolves around the difficulty of identifying specific sources of capital with specific expenditures and of establishing the cost of capital either on an overall basis or for certain portions of it, such as retained earnings. A special situation might be said to exist when a special financing method is employed (such as occurs in the municipal financing of corporate purchases of pollution control equipment, although this can also be debated).

At times, some or all of the social expenditures will be recovered, either as direct cost recoveries or through the sale of products that arise out of the social effort. The former may result from grants or fees for training courses or partial subsidies for such things as special transportation programs or the use of less than fully qualified personnel. The latter may result from reductions in scrap, from products or materials recovered, (such as from recycling), from products resulting from pollution control processes that can be sold in the open market, from former waste materials that can be used as fuel, or even from royalties on the processes themselves. These items should be considered as reductions in the

company's social costs. For disclosure purposes, they could be netted against their related costs. However, since it is more informative to show both the gross costs and the offsets, this treatment will normally prove to be preferable, unless the offsets are minimal.

Two other more general forms of cost offset or recovery deserve comment. The first arises from the fact that all or a large portion of a company's social costs will normally be recovered through the prices charged for the company's products. There might be some debate on this point, but most executives would agree (1) that social costs have, in the past, been taken into account in setting sales prices and they will continue to be so considered in the future and (2) that, except in unusual cases, costs will be recovered. It would be acknowledged that this might not happen in transitional periods or in cases involving complete abandonment or unusual competition or a limited number of specific products. However, for the economy as a whole, most would believe that costs would be recovered and even that profits would be positively affected. This is not, however, easy to prove in advance or even after the fact; it will be even harder to establish quantitatively during transitional periods and in most of the exceptional cases.

We believe that social costs should be reported gross, without reduction for recoveries in sales prices, (1) because that information usefully indicates total costs without regard for who ultimately paid them and (2) because of the uncertainties about extent of recovery mentioned above.

The authors' recommendation is the same with respect to offsets because of state and federal income taxes. The usefulness of information about the gross social cost is the same. Moreover, the validity of an after-tax figure rests on uncertain grounds. State and federal income taxes are based on profits. The tax saving is not 50 percent (or whatever the combined state and federal income tax might be) of the costs. It is 50 percent of the unrecovered costs. To state that it is 50 percent of the gross social costs requires evidence that none has been passed on to customers or, in other terms, that, in the absence of expenditures with social objectives, pre-tax profits would have been greater by an amount equal to the gross social costs. For reasons discussed above, this will be very difficult to prove, even in the unlikely situation that it is true, except in what will probably be a relatively small number of isolated instances. In those instances, before- and after-tax information might be useful.

Modifications for Special-Purpose Reports

Corporate executives often modify the financial data that appear in published financial reports for purposes of special studies and evaluations. This occurs both in instances where the long-term commitment of funds is involved and in connection with matters of shorter duration. The most important modifications arise out of an executive's desire to know (1) the marginal or incremental costs

and effects of past and proposed actions, (2) the opportunity costs of such actions, (3) the cost of the capital required to implement them, (4) the present value of expenditures, benefits, and disbenefits that will occur at various dates in the future, and (5) the results that occur when the book values of assets and liabilities are substantially different from currently realistic values. Each of these modifications applies principles that are deemed to be of substantial importance by economists. They are used by accountants to a limited degree in published financial statements.

The first modification is self-explanatory. An executive frequently wishes to know the incremental results that will be achieved by committing different amounts of funds for capital or operating purposes. This will be important when changes in the level of expenditure or of achievement are under consideration. When special studies are made to provide information for such decisions, a "hard-nosed" definition of marginal costs or results is often employed. "Marginal" or "incremental" comes close to being the directly variable costs with no, or a minimal inclusion of, indirect costs or of overheads and more general expenses. "Sunk costs" are usually ignored. For consistency, results are normally computed in a similar manner.

In addition, an executive frequently will be interested in the opportunity cost of a specific project or set of actions. This is defined as the cost of the opportunity that has been foregone, either because the selection of one alternative effectively forecloses the other from an operational point of view or because a lack of funds or human resources made it impractical to carry out more than one project or set of actions simultaneously.

The third and fourth modifications involve the introduction of the cost of capital and the timing of expenditures and benefits as factors of importance in evaluating the worth of a project. This is accomplished by determining the timing of future costs and benefits and discounting them at a rate that reflects the cost of capital in order to determine their present value. The process of discounting gives recognition to differences in timing, giving greater weight to expenditures made and benefits achieved in the short-, rather than the long-term, future. As the cost of capital rises, the importance of short-term expenditures and results increases.

The question facing the social measurer is whether to use these and other modifications in making social measurements of an economic nature when they are to appear in special studies and reports for appropriately informed and limited audiences. There obviously is a considerable advantage to doing so in companies using these principles for economic analyses, for then both the economic and the social data will be on a common basis when a company is examining capital expenditure opportunities or requirements and making operating decisions.

To see if this can be done, however, requires that costs and benefits be considered separately.

Costs, whether capital or operational, present no particular difficulties. If

total costs can be established on the basis of a tight definition of "marginal," that portion deemed to be social can be established also. If they can be established for one set of alternatives, they can for "opportunity" alternatives, also. Similarly, if costs can be assigned to periods, they can be discounted at whatever rate of discount is deemed to reflect the cost of capital most appropriately.

Benefits present a more difficult, if not insurmountable, problem. Economic results can be handled in the customary manner. The social benefits (and disbenefits) are, however, very different. First, there is the difficulty of estimating future benefits and disbenefits and the inability to express all or even most benefits and disbenefits in financial terms or in any common unit of measurement. And, second, is the problem of the discount rate to use. As the discussion in Appendix 1 indicates, there is a substantial argument—much of it based on ethical considerations—about whether a rate of discount appropriate for economic decisions is also appropriate for some of the more human aspects of life.

It is the authors' feeling that, while the principle of social discounting is sound, the practical and ethical problems are sufficiently important to make it undesirable to use it now. If present-value calculations are deemed important by individual companies, they should be so made and disclosed to the decision maker as to permit a maximum use of judgment on his part.

For pragmatic reasons, involving, in part, the risks of error in estimating social consequences, it also may prove desirable to cut off estimates of costs and consequences after a specified, relatively short period of years. In a sense, this is an alternative to discounting. It obviously is best suited to situations where the principal effects are expected to occur in the earlier years or at a fairly steady pace for a somewhat longer period. It is unsuited for situations where the major effects are delayed or increase as time passes.

The final modification that might be helpful in special analyses uses calculations based on currently realistic values whenever the book values of assets and liabilities differ from them substantially. A simple example would involve a decision as to whether to donate land purchased fifty years ago for $1,000 whose current value was far in excess of that amount. Such adjustments are as noncontroversial in social measurement as they are when "strictly economic" judgments are involved. They should, and almost surely would, be made.

Summary

The techniques and principles of social measurement are intended to develop and communicate information about corporate social performance to a variety of internal and external audiences. The accounting principles commonly used in developing general and special-purpose financial statements analyses will often be very useful for this purpose, but they should be modified whenever it is desirable to do so if that will result in making the social information more mean-

ingful. When social information forms a part of, or is intended to be read in conjunction with, audited financial statements, there will be such a strong presumption that social information has been prepared in accordance with generally accepted accounting principles (GAAP) that exceptions should be appropriately described. As the audited financial statements and social information become less directly connected, the accounting principles used in developing social information will often move further away from GAAP, at times using the techniques of economic analyses. When the bases of calculation are not self-evident, there will usually be merit in disclosing how the calculations have been made.

appendix four | Research Needs and Opportunities

Progress in social measurement will, for a long time, depend upon both practical efforts and research. Much of the advancement must come from efforts to develop and install social measurement systems in real-life situations and, by a process of empirical and applied research, to identify the practical problems encountered and the solutions developed and then to disseminate information about them for general use. Additional research should take place at more abstract levels to deal more generally with concepts, techniques, and similar matters.

Research can be expected to be most productive when academia, accountants and other practicing professionals, and industry all are involved—in their individual capacities and as participants in cooperative, joint ventures.

Future research need not or should not be based on total acceptance of either the systems approach suggested in this book or one or more of the comprehensive, single-unit systems that others have proposed; in fact, much of the research suggested here will be of value to all systems.

A large number of research projects can be identified in the unresolved questions that have been discussed and in the suggested, yet unproven, solutions that have been described in this book. The authors have prepared the following list of projects, which deal with subjects about which further knowledge would be useful.

General Interest Research

- The experiences of individual companies that have installed social measurement systems—problems, solutions, costs, and benefits.
- Concepts and methods for distinguishing between economic and social costs, values, and impacts.
- Methods for partially or totally integrating financial and social information, including its presentation in a single statement.
- The practical limits of using a single unit of measurement of either a financial or nonfinancial nature; the development of feasible strategies for testing these conclusions in a large and complex enterprise; the characteristics of attractive hybrid systems.

- The characteristics (that is, roles, authority, membership, working procedures) of public or professional bodies that might establish standards, select areas of concern and indicators, and otherwise assist in implementing social measurement on a basis that would assure reasonable uniformity.
- Those aspects of the experience of the federal government and international agencies in social measurement that would (a) be of general interest to the corporate community, (b) would result in setting forth implicit and explicit values that are used by the government in its decisions and also have relevance for business, and (c) might lead to a harmonization of the specific measures and indicators used by both government and industry.
- Further opportunities to apply the principles of welfare economics (for example, consumer surplus, discounting) to corporate social measurement systems.
- Problems of applying sampling and other elements of statistical theory to social measurement (for example, sample sizes, identification of subdivisions of publics, control groups, group dispersal over time, reluctance of individuals to provide information, intended and unintended biases, and question design).
- The feasibility and utility of developing a full or partial hierarchy of social information along the lines of the GNP; the feasibility of developing input-output matrixes resembling the Leontief model.

Single-Unit System Research

1. Methods for, and problems involved in, measuring directly in single units or converting multiple, "natural" units into single units, including an assessment of the advantages, disadvantages, and limitations of alternative approaches.
2. User attitudes toward the desirability of single-unit reporting, as developed from the experiences of various users and various types of information.

Multiple-Unit System Research

1. User reactions to such systems; user ability to understand and advantageously use the resulting information.
2. Procedures for selecting indicators; studies of the feasibility and utility of the particular indicators suggested in this book and elsewhere.

Single- and Multiple-Unit System Research

1. The relative value of different organizational arrangements for designing and implementing systems, producing social information, and bringing about its use.
2. The feasibility of establishing impact sets; the contents of impact sets arising out of specific corporate actions; the actual value of impact sets to social measurers in given situations.
3. The development of standard terminology.
4. The development and codification of principles of social measurement and, especially, the development of practical methods for dealing with such matters as the following:
   - The discounting of future costs and benefits.
   - The establishment of levels of performance that might be considered as bases of comparison, and the effects on them of changes in societal expectations, different technologies, and the like.
   - The manner in which measurements of the corporate social performance of multinational corporations should reflect the characteristics of the divergent societies in which they operate.
   - Practical methods for classifying actions as "illegal" and "criminal" and selecting the time at which they become "measurable."
   - Accounting problems of identifying benefits and costs; the need or desirability for conformity with GAAP.
   - The identification of measurable "inactions" and the basis for their inclusion or exclusion.
5. The potential of, and the procedures and problems of, different forms or levels of assurance, particularly in terms of practical experience.
6. Reactions arising from using different techniques to present social information to different internal and external audiences as part of integrated or separate reports.
7. The development of effective techniques for "process audits."

Organizational Research

1. Studies of the actual skill requirements involved in social measurement systems, estimates of the disciplinary skills needed, and time requirements in typical situations for (a) developing social measurement systems, (b) developing social information, and (c) auditing it.

2. Sources of personnel; impacts on disciplines and firms that choose to engage extensively in social measurement activities; advantages and disadvantages of, and prospects for developing, new types of professionals and firms.
3. Feasibility of developing a model educational program for social measurers.

Bibliography

In the course of preparing this book, the authors reviewed a large amount of material bearing directly or indirectly on social measurement. A review of that material would help readers to judge for themselves the soundness of the conclusions set forth in this book.

Such a list would, however, have limited value; it would be considerably less useful than a bibliography providing guidance about probable sources of useful material in the future. The literature on social measurement is developing at a rapid rate, building upon that which has appeared in the past.

This bibliography, therefore, lists a relatively small number of books and articles of historical or current value and a number of sources of information that, based on past performance, may be expected to be productive in the future. The bibliography is not intended to be all-inclusive; rather, it is intended to set forth starting points from which to explore different types and flows of material on the subject.

Books

A few classic or basic texts of current or historical value that discuss the general concept of social responsibility and the problems of social measurement and the social audit.

Anshen, Melvin, ed. *Managing the Socially Responsible Corporation.* New York: Macmillan Publishing Co., Inc., 1974.

Bauer, Raymond A., et al. *Social Indicators.* Cambridge, Mass.: MIT Press, 1966.

———, and Fenn, Dan H., Jr. *The Corporate Social Audit.* New York: Russell Sage Foundation, 1972.

Campbell, Angus, and Converse, Philip E., eds. *The Human Meaning of Social Change.* New York: Russell Sage Foundation, 1971.

Chamberlain, Neil W. *The Limits of Corporate Responsibility.* New York: Basic Books, 1973.

Corson, John J., and Steiner, George A. *Measuring Business's Social Performance: The Corporate Social Audit.* New York: Committee for Economic Development, 1975.

Dierkes, Meinolf, and Bauer, Raymond A., eds. *Corporate Social Accounting.* New York: Praeger, 1973.

Estes, Ralph W. *Accounting and Society.* Los Angeles: Melville Publishing Co., 1973.

Goals for Americans: The Report of the President's Commission on Social Goals. Englewood Cliffs, N.J.: Prentice-Hall, 1960.

Goldston, Eli. *The Quantification of Concern: Some Aspects of Social Accounting.* New York: Columbia University Press, 1972.

Linowes, David F. *The Corporate Conscience.* New York: Hawthorn Books, 1974.

Mishan, E. J. *Economics for Social Decisions: Elements of Cost-Benefit Analysis.* New York: Praeger, 1973.

Pigou, Arthur C. *The Economics of Welfare.* New York: Macmillan and Company, Ltd., 1960.

Seidler, Lee J., and Seidler, Lynn L. *Social Accounting: Theory, Issues and Cases.* New York: John Wiley & Sons, Inc., 1975.

Sheldon, Eleanor B., and Moore, Wilbert E. *Indicators of Social Change: Concepts and Measurements.* New York: Russell Sage Foundation, 1968.

Stone, Christopher D. *Where the Law Ends: The Social Control of Corporate Behavior.* New York: Harper & Row, 1975.

Terleckyj, Nestor E. "Measuring Possibilities of Social Change." *Looking Ahead.* August 1970.

U.S. Department of Health, Education and Welfare. *Toward a Social Report.* Washington, D.C.: U.S. Government Printing Office, 1969.

U.S. Office of Management and Budget. *Social Indicators, 1973.* Washington, D.C.: U.S. Department of Commerce, 1973.

Periodicals

Business-oriented publications that frequently publish articles dealing with corporate social responsibility and social measurement from a general (rather than essentially an events-oriented) point of view.

California Management Review
Fortune
Harvard Business Review
Sloan Management Review (MIT)
The Conference Board Record

Publications specifically concerned with issues of social responsibility and social measurement.

Accounting, Organizations and Society: An International Journal (UK)
Business and Society Review/Innovation
Social Indicators Research (The Netherlands)
The Social Audit (UK)

Business and industrial periodicals

Virtually all of the periodicals concerned with the major functions of business or with particular industries contain material helpful to the social measurer in dealing with a particular area. These magazines, too numerous to list, contain articles about matters deemed to be of social concern to functional and top executives. They also describe specific techniques used and information developed in measuring activities for operational purposes that may be useful in social measurement.

Scholarly periodicals

Publications expressing the points of view of various disciplines or general scholarly/academic publications.

American Economic Review
American Sociological Review
Daedulus (American Academy of Arts and Sciences)
Federal Accountant
Journal of Accountancy
Management Accounting
Political Science Quarterly
The Accounting Review
The American Scholar

Events of current interest

(As reported, the articles normally are not written as events relating to social measurement. However, once one begins to understand the principles, problems, and needs of social measurement, little difficulty is found in making the articles relevant from that point of view.)

Barron's
Business Week
Fortune
The New York Times

Saturday Review
The Wall Street Journal

Government sources

1. Brookings Institution—Annual analyses of federal budget proposals and other selected publications.
2. General Accounting Office—Selected reports as chosen from the Monthly List of GAO Reports.
3. The Urban Institute—particularly its publications relating to the measurement of municipal services.
4. Federal Register and Code of Federal Regulations—Regulations, proposed regulations, etc. of the executive departments.
5. Annual and special reports of major governmental agencies (e.g., the Council on Environment Quality), regulating important areas of business activity, and of governmental agencies (e.g., Department of Transportation), carrying out activities identical with or closely resembling those carried out by industry.
6. The reports of Presidential Commissions dealing with important areas of business activity.

Publications of various organizations

1. Annual Reports and Special Reports of selected companies. (For a survey of social reporting by corporations see the Ernst and Ernst *Survey of Annual Reports.*)
2. Battelle Memorial Institute (particularly the results of its activities in the behavioral and social sciences).
3. Committee for Economic Development (studies of private and public policy).
4. Council on Economic Priorities (general newsletters and releases and specialized studies of corporate performance in fields such as employment, pollution, credit, products, in particular industries).
5. Harvard Business School (case studies of real-life situations, with company identities sometimes revealed, sometimes disguised. For a listing see Material Prepared by the Corporate Responsiveness Research Group, c/o Professor Bauer).
6. INFORM Inc. (studies of corporate impacts on employees, consumers, communities, and the environment).
7. Human Resources Network (extensive listings and descriptions of company activities and reporting).

8. United Nations (country, program, and project evaluation procedures; studies of multinational corporations, international and third world problems, the environment, etc.).
9. Other issue-oriented organizations with a large number of publications (locate by reference to the particular issue: pollution, women, investments, health and safety, urban affairs, etc.).

Bibliographies and brief references

1. An Annotated Bibliography of Cases Pertaining to Corporate Responsiveness, 1975 (Harvard Business School, Cases 8–375–415).
2. Bibliography of Current Important Reading (The Public Affairs Council).
3. Business Periodical Index.
4. Corporate Responsibility for Social Problems: A Bibliography (Bank of America).
5. Social Indicators Newsletter (Social Science Research Council).
6. The Policy Analysis Source Book for Social Programs—A report prepared for the National Science Foundation by The National Planning Association. November 1975. U.S. Government Printing Office (stock number 038–000–00266–0). "A reference consisting of about 3,750 abstracts of significant books, articles and reports concerned with policy issues and the analysis of social programs and a list of about 775 titles recommended by experts as additional sources of valuable information."

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